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# Scottish Chemists' Dispute

### ARBITER TO RESOLVE DEADLOCK

THE question of Scottish chemists' remuneration when prescription charges are reintroduced is being referred to an independent arbiter. The Pharmaceutical General Council (Scotland) and the Scottish Home and Health Department have failed to reach agreement concerning the level

The arbiter is Mr. J. P. Mackay, Q.C., who has been appointed in accordance with the Whitley Committee procedure. However, on this occasion the Council and the Health Department agreed that a single person should adjudicate instead of a tribunal. Mr. M. M. McNeill (the Council's secretary) said that the Government had offered a penny per prescription, eventually reducing to a halfpenny after twelve weeks. The Council did not think that was enough. Mr. Mackay was chairman of the arbitration tribunal that recently adjudicated on Scottish chemists' remuneration (see C. & D., November 11, 1967, p. 442). It is hoped that in view of his special knowledge and experience he will be able to give a decision within a short time.

## Hospital Salaries

"PRODUCTIVITY" CLAIM

"PRODUCTIVITY" CLAIM

A CLAIM for a 3½ per cent. "productivity" increase in hospital pharmacists' salaries came before the Pharmaceutical Whitley Council, Committee "C," on May 29. The management side asked for "further evidence," which is now being collected by the staff side and will be presented at a meeting of the committee on July 24.

#### **Dispensing Committees** LAY MEMBERS PROPOSED

DRAFT amendments to regulation 27 of the N.H.S. (General Medical and Pharmaceutical Services) Regulations (which provides for the supply of drugs and appliances by general practitioners in rural areas) has been sent by the Ministry of Health to the Central N.H.S. (Chemist Contractors) Committee. The draft provides (a) for the inclusion (in addition to the three pharmacists and the three doctors) of two lay members, who shall be members of the Executive Council, on the Dispensing Committee, and (b) that the chairman (who shall not be a medical or dental practitioner or an optician or

pharmacist) and the two lay members of the Committee "shall be resident in a rural area." Members of the Central Committee who are members of Dispensing Committees which at present include lay members believe that inclusion of lay members can be helpful to the interests of pharmacists rather than harmful. The Committee, decided, however, to seek the views of Local Pharmaceutical Committees in rural areas, though it is pointed out that because of the strong "consumer interest" the Ministry may insist on the inclusion of lay members.

#### Eyelashes "Freed" PRICES COURT ISSUES ORDER

THE Restrictive Practices Court in London on May 31 made a final order declaring that it refused to exempt artificial eyelashes, artificial finger nails, adhesives and brushes and nail files from the general ban on resale price maintenance imposed by the Resale Prices Act, 1964. Those goods were not included in the reference of manicure, cosmetic and ference of manicure, cosmetic and toilet requisites which was before the court in April (C. & D., April 27, p. 365), a final order in respect of certain classes of goods contained in the reference was made. Eyelure, Ltd., was the only respondent which had delivered a statement of case seeking exemption but, after the decision in the main case the company decided not to proceed with their claim.

### Growing Taxation EFFECT ON UNICHEM ASSOCIATION

"AFTER effecting enough economies to offset a sum of £30,000 tax imposition, we might be excused if we gave way to some measure of despondency, said Mr. G. J. White (general manasaid Mr. G. J. White (general manager, Unichem Association, Ltd.) at the annual meeting on May 22. That, however, was not so, "though further tax impositions would filch at least a further £5,000, and in 1969 the traumatic total of an extra £15,000." Anythina left agent was when the supposition of the supposition of

thing left over was what was euphemis-

tically called "profit before tax." New business systems were being tried out to increase efficiency and he thought that the company could now rightly claim to be "within sight of regaining that level of performance which was so envied by others several years ago." In the main, the Government had taken what previously had been returned to the members by way of rebate. Nevertheless, in 1967 a total of bate. Nevertheless, in 1967 a total of £10,000 was given as discount on bulk sundries orders. The 250 members and friends who attended were welcomed by the chairman (Mr. J. Howard Evans). After question time a film "Destiny of Flowers" was shown and an address on "The Art of Perfumery" was given by Mr. W. Botfield, (vice-president, British Society of Perfumers).

## "Care with Medicines"

NEW RoSPA CAMPAIGN

TO draw attention to the fact that all medicines can be dangerous unless treated with respect, the Royal Society for the Prevention of Accidents is launching a nation-wide "Care With Medicines" campaign to run from July till the end of September. RoSPA points out that the most recent figures available show that in 1966 a total of 1,719 people in Great Britain died as a result of domestic poisoning accidents—over 500 more than in 1956. With many medicines looking like sweets, RoSPA has produced the new poster illustrated, showing a heap of brightly coloured



does your child know the difference

**LOCK AWAY ALL MEDICINES** 

STOP HOME ACCIDENTS

tablets. Lecture-planning literature in support of the campaign advises the public to get a doctor's prescription, or to consult a pharmacist when obtaining medicines.

## B.P. Commission NEW MEMBERS APPOINTED

THE following persons have been appointed to serve on the British Pharmacopoeia Commission from September 1: Professors E. F. Scowen and E. M. Wilson (therapeutics and clinical medicine); Professors W. L. M. Perry and D. R. Wood (pharmacology) Drs. D. R. Bangham and F. T. Perkins (biological products); Messrs. A. G. Fishburn and J. Hanbury (pharmacy); Dr. F. Hartley (chemistry); and Drs. D. C. Garratt and D. T. Lewis, Professors W. G. Overend and J. B. Stenlake and Mr. D. C. M. Adamson. The provisions of the Medicines Bill make it likely that their term of office will extend until responsibility for the Pharmacopoeia is transferred to the Medicines Commission (probably around April 1969).

## Anti-depressant Dangers WARNING CARD FOR PATIENTS

A TREATMENT card to be carried by patients undergoing monoamine-oxidase inhibitor treatment has been prepared by the Association of the British Pharmaceutical Industry with the co-operation of the Committee on Safety of Drugs. Issued by the patient's doctor, the card is to be shown to any doctor or dentist giving treatment. It will carry the name of the drug prescribed. Patients are warned to avoid during their course of treatment and for ten days after it finishes, such things as cheese, Bovril, Oxo, Marmite and broad beans, and to take no alcohol. They are also warned not to take, without first consulting their doctor, any other medicines (including tablets, capsules, nose drops, inhalants or suppositories), whether purchased from a chemist or previously prescribed.

## IRISH NEWS

THE REPUBLIC

## Irish Drug Industry

EXPORTS UP BUT CAPACITY TO SPARE

EIRE'S exports of medicinal and pharmaceutical products increased in value from £5,444,101 in 1966 to £6.880.067 in 1967 and were continuing to rise, the chairman of the Pharmaceutical and Allied Industries Association, Ltd. (Mr. E. J. Dover) told the Association's annual meeting in Dublin on May 23. Exports to the United Kingdom were expected to increase in the current year, although their value of slightly more than £1 million in 1967 was little changed from the previous year. Exports to Nigeria doubled in 1967 to £42,592. In spite of that progress, however, the industry had excessive spare capacity and unless there were a concentration, especially in tablet processing, accompanied by additional contract manufacture and a rise in exports, plants with a relatively low throughput would have a slim future. Of £37,700,000 spent by local health authorities on Health Services during the year ended March 31, only £2,654,700 (7.1 per cent.) had been spent on medicines. It was thus clear that there was "too much loose talk" about savings on medicines and that there had been too easy an assump-tion that the industry could afford or allow itself to become disorganised through pressures to achieve economies. The Association had recommended the setting up of a quality control system which would include an inspectorate to take samples of pharmaceutical preparations at all stages of distribution, and a pharmaceutical quality control laboratory evolving by stages into a fully equipped analytical laboratory. Mr. P. E. Greville (managing director, Albright and Wilson (Ireland), Ltd.), was elected *President* for the coming year and Mr. A. C. Martin (I.C.I. (Ireland), Ltd.), Vice-president.

## ADVERTISING MEDICINES

#### W.H.O. sets a standard

PHARMACEUTICAL advertising, if not objective, is detrimental to the health of the public, according to a resolution adopted by the World Health Organisation's committee on programme and budget. The resolution urges member states to enforce the application of the following cthical and scientific criteria:

All advertising on a drug should be

All advertising on a drug should be truthful and reliable. It must not contain incorrect statements, half-truths or unverifiable assertions about the contents, effects (therapeutic as well as toxic) or indications of the drug or pharmaceutical speciality concerned.

#### To Medical and Related Professions

In describing the properties of a drug and its use, stress should be laid on rendering facts and data, whereas general statements should be avoided. Statements should be supported by adequate and acceptable scientific evidence. Ambiguity must be avoided. Promotional material should not be exaggerated or misleading. A full description, based on current scien-

tific knowledge, should include information on the producer and sponsor of the product advertised; full designation (using generic or non-proprietary names) of the nature and content of active ingredient(s) per dose; action and uses; dosage, form of administration, and mode of application; side effects and adverse reactions; precautions and contra-indications; treatment in case of poisoning; and references to the scientific or professional literature. A fair balance should be maintained in presenting information on effectiveness on the one hand and adverse reactions and contra-indications on the other.

#### To Public

Advertisements to the public should not be permitted for prescription drugs, for the treatment of certain diseases and conditions which can be treated only by a doctor and of which certain countries have established lists, or in a form which brings about fear or distress, or which declares specific remedies to be infallible, or suggests that they are recommended by members of the medical profession.

### NEWS IN BRIEF

THE index of retail prices in April was 124'8 (January 1962=100), against 122'6 in March.

Guy's Hospital, London, may soon have to cease dispensing for out-patients through lack of qualified staff.

TOTAL synthesis of thyrocalcitonin (see C. & D., June 1, p. 483), has been achievel by Sandoz Products, Ltd.

A CHART of comparative National Health Service costs of urinary antiseptics has been published by the Scottish Home and Health Department.

AN industrial training board for the paper and paper products industries is constituted by the Industrial Training (Paper and Paper Products Board) Order 1968, S.I. 1968, No. 787 (H.M. Stationery Office, price 1s.).

THE presentation dinner in honour of Messrs. Mitchell C. Ross and James Forsyth (C. & D., June 1, p. 486) took place in Aberdeen and was attended by 150 people [corrected note].

THE Board of Trade has announced that it does not intend to refer the proposed merger of Boots Pure Drug Co. Ltd., and Timothy Whites & Taylors, Ltd. (see *C. & D.*, May 18, p. 431), to the Monopolies Commission.

ADDITION of a plastic insufflator (of the type used for administration of Intal compound capsules) is among changes notified in the June list of price revisions to the Drug Tariff (Scotland).

THE disciplinary committee of the General Medical Council has ordered the name of Dr. John Petro to be removed from the Medical Register. Dr. Petro has been the subject of much publicity concerning his prescribing of Dangerous Drugs to addicts.

THE two articles "Siting the Cash Register" and "Why Modernise?", together with the accompanying plans, published on pp. 16-17 in the C. & D. Shopfitting and Display Supplement, May 25, were specially compiled for THE CHEMIST AND DRUGGIST by the National Cash Register Co., Ltd.

THE Minister of Housing and Local Government has given planning permission for the first industrial estate at the new town of Thamesmead. Locations on the 45-acre estate are being reserved to companies already established in London that cannot move outside the area.

THE out-of-hours delivery scheme sponsored by the Transport Coordinating Council for London is not continuing in its present form after the end of June, owing to lack of support. Suppliers and retailers are being encouraged to make their own arrangements for out-of-hours delivery.

Notification of the use of unsealed radioactive substances and the maintenance of registers is required under the Ionising Radiations (unsealed Radioactive Substances) Regulations, 1968, S.I. No. 780 (H.M. Stationery Office, price 2s. 9d.). The Regulations include measures to be taken in the event of spills and accidental escapes, and for the cleansing and decontamination of areas, equipment, and persons.

#### SPORT

#### BOWLS.

ULSTER CHEMISTS' BOWLING ASSOCIATION. The nineteenth annual tournament was held at Belmont Bowling Club's green, Belfast, on May 29 when nearly sixty chemist-bowlers spent an enjoyable afternoon competing for prizes donated by local wholesalers. Mrs. E. Gray wife of the captain (Mr. T. Gray) presented prizes. Results: Jack Caldwell Rose Bowl, T. Gordon Ellis. Ulster Chemists Cup, W. A. Boyd. Chemists' Section, 1, C. S. Ritchie; 2, M. C. Mooney; 3, W. J. Moffett. Consolation prize, G. P. Taylor. Representatives' Section, 1, E. McCann; 2, W. Brown; 3, W. P. Moore. Consolation prize, T. C. McMeekin. Mr. S. Magowan organised the tournament, Mr. W. J. Rankin acted as scorer. A donation is being made by the Association to the Northern Ireland Chemists Benevolent Fund. The annual match with Scottish chemists takes place in Scotland on June 19.

#### GOLF

EDINBURGH CHEMISTS' GOLF CLUB. Ratho Park golf club provided the venue for the club's meeting on May 22. Results: A. & H. Cox prize, T. W. Strachan (14), 66. Best scratch score, W. Renton, 75. Section No. 1, T. R. Johnson (10), 67. Section No. 2, G. Miller (24), 67.

MANCHESTER PHARMACEUTICAL GOLFING SOCIETY. Members competed at Clitheroe golf club on May 22 for the Phillipson trophy. Results: 1, L. M. Wise; 2, Dr. Frazer.

SOUTH LONDON AND SURREY PHARMACISTS GOLFING SOCIETY. Forty-eight members and

SOUTH LONDON AND SURREY PHARMACISTS GOLFING SOCIETY. Forty-eight members and guests were present at the Society's meeting at Kingswood golf club on May 23. Results: Widocks Memorial trophy, 1, S. G. Mote (Walton Heath), 35 points; 2, P. Fernandez (Shirley Park), 34 points; 3, J. Martin (Ifield), 34 points. Special prize, A. Reary (Croham Hurst), 33 points. Bobby Locke trophy, 1, A. Talbot (R.A.C. Golf Club) 32 points. Scratch to fourteen handicap prize, F. Jamiesson (Shirley Park). Fifteen and over handicap prize, J. A. Williams, Best score on first nine holes, B. Widocks. Best score on last nine holes, A. Brien. Visitors prizes, 1, K. Tetry (Banstead) 29 points; 2, R. Rogers (Wyke Green) 28 points.

## LOCAL OFFICERS

#### PHARMACEUTICAL SOCIETY

Huddersfield.—Chairman, S. Crowther; Vicechairman, Mrs. J. Mair; Treasurer, J. S. Affleck; Press Officer, G. A. Walker; Secretary, M. Wilson, Tarn Hows, 38 Deyne Road, Netherton, Huddersfield, Yorks (telephone: Huddersfield 61005 (home) 61263 (business)).

Leeds. — Chairman, L. Calvert; Vice-chairman, Dr. E. R. Clark; Treasurer, T. W. Fisher; Secretary, W. Howarth, 6 The Crescent, Adel, Leeds, 16 (Telephone: Leeds 673037).

#### PHARMACEUTICAL ASSOCIATIONS

Enfield.—President, J. D. Tombs; Vicepresident, J. L. Stacey; Social secretary, D. J. Kay; Secretary, F. R. Bayford, 3 Graham Cottages, Laurel Bank Road, Enfield, Middlesex.

Liverpool. — President, J. C. Leigh, Vicepresident, W. G. Fowler; Treasurer, R. Clitherow; Secretary, A. E. Hunter, 164 Prescot Road, Aughton, Ormskirk, Lancs.

#### NATIONAL PHARMACEUTICAL UNION

Huddersfield.—Chairman, G. Greenwood; Secretary, R. Gledhill, 10 Westgate, Honley, Huddersfield, Yorks (telephone; Huddersfield 61818).

#### ASSOCIATION OF WOMEN PHARMACISTS

Merseyside.—Chairman and Assistant Secretary, Mrs. A. A. D'Arcy; Vice-chairman, Mrs. E. J. M. Leigh; Treasurer, Mrs. E. Short; Social Secretary, Miss M. Caldecott, 19 Mayville Road, Liverpool 18; Secretary, Miss E. M. Crawford, 3 Melrose Avenue, Crosby, Liverpool 23.

## TOPICAL REFLECTIONS

By Xrayser

#### Judgment

The final appeal to the Lords by the Pharmaceutical Society has been rejected. The intentions of the resolution, passed massively at the Albert Hall following the undignified proceedings at the annual meeting a few weeks earlier, have been found to be inadmissible, and the appellate committee of the House of Lords has found unanimously in favour of R. M. Dickson. The fact that, in giving judgment, Lords Morris and Upjohn cited a case decided as long ago as 1711 suggests that the name Dickson may be destined to become immortal, and that he may be dusted and taken down from the shelves in the year 2225 — and if that is not immortality it is as near as may be. The resolution may have been imprecise in certain particulars and, had the appeal been upheld, its inclusion in the Statement upon Matters of Professional Conduct would have raised administrative problems of great complexity. But it was, as Lord Reid stated, proposed and supported with the belief that it would assist in maintaining and raising the standards of the profession, though he confessed himself unable to find from the evidence any reasonable support for that belief. The opinion of Lord Morris was that it was a great many decades too late to suggest that the "honour" of pharmacists was tarnished if they concerned themselves with activities other than pharmacy or other than those akin to or fairly closely akin to those of pharmacy. He did not commit himself by definition, though he did go on to say that he had no doubt that there could be some trading activities — again unspecified which it would be undesirable for pharmacies to undertake in conjunction with their professional activities as pharmacists. But it was no part of his task to delineate, nor did he do so. What was almost universally recognised was that it would not be economically practicable to provide dispensing services without at the same time selling traditional goods and that most professional pharmacists would be at a great disadvantage economically if the sale of non-traditional goods were on a much smaller scale than it is at present.

#### By that same door

The absurdity towards the distribution of medicines in this country is almost incredible. On the one hand we have the acceptance by the Lords, who have given judgment in the appeal that pharmacy would not be economic were it not for the sale of other forms of merchandise - an admission on due consideration of the evidence, the import of which should not be lost in the Ministry of Health. On the other we have a statement in the debate in the House at the committee stage of the Medicines Bill (p. 500) that there are 150,000 shops in the country at which medicines are sold. For the argument, it does not matter if that number is additional to or inclusive of the number of pharmacies in the land. The fact remains that the restriction of the sale of medicines to those who, by training and qualification, are the obvious people to supply them, would help in some measure to minimise the need to indulge in unrestricted trading to make pharmacy economic. But, however logical that argument may seem, we were reminded last week by the highest legal authority that the law has always favoured freedom of trade, citing the case of Mitchel v. Reynolds in 1711, and a later judgment in 1742, though the latter did say something about sufficient justification. But in our Gilbertian little world it might be hard to justify that the completely untrained person should not be allowed to handle medicines and retail them along with potato crisps.

#### **Principles**

The Daily Telegraph, reporting the Lords judgment, referred to the Company Chemists Association, of which Boots and Timothy Whites were, they said, the "principle" members. That suggests that other members of the association are without principle—a most calumnious insinuation! And there is no question that principles remain important, as does the Statement Upon Matters of Professional Conduct, which is not at all discounted by all that has happened.

## SCOTTISH EXECUTIVE ELECTION

Biographical notes on candidates

ELECTIONS for the Scottish Department Executive of the Pharmaceutical Society are being held in June. Voting papers were being issued on June 6 and must be returned by June 18. The following notes on candidates have been

supplied:—
Mr. Walter Charles Deans Bain, Aberdeen.-Registered 1933. In private practice. Member of Scottish Executive since 1953 and a former chairman. Chairman Local Pharmaceutical Committee, a member, Aberdeen Executive Council and of Executive Scottish Pharmaceutical Federation. A former chairman, Aberdeen and Northeastern Scottish Branch and Aberdeen Pharmaceutical Association.

Mr. HENRY BEAUMONT CAIRD, F.P.S., Forfar, Angus.—Registered 1950. Proprietor pharmacist. Chairman, East Central Scottish Branch, S.P.F., a committee member, Dundee and East of Scotland Branch; a past member, Angus Local Pharmaceutical Committee.

Mr. GORDON HUGH VEITCH CAMPBELL, Tarbet, Argyll.—Registered 1958. Proprietor pharmacist. A member Agricultural and Veterinary Pharmacy Group of the Society. A member, Argyll and Bute Local Pharmaceutical Committee since 1963, a member, Pharmaceutical General Council (Scotland) since 1965 and a newly elected member of its Standing Committee. A member, Institute of Pharmacy Management.

Mr. GERALD ARNOLD DAVIS, Aberdeen. - Registered 1959. After administrative experience returned to general practice in charge of a private business.

Mr. John Bateman Dunnett. Edinburgh, Registered 1933, Representative for company of manufacturing chemists. A member of committee, and a past chairman Edinburgh and South-eastern Scottish branch.

Mr. James William Goodchild, F.P.S., Brightons-by-Falkirk. — Registered 1932. Proprietor pharmacist. A member of Scottish Executive since 1957 and chairman 1963-65. Vice-chairman, Stirling and Central Scottish Branch. A member, General Council (Scotland) and of its Standing Committee. Vice-chairman, Scottish Pharmaceutical Federation, a member and past chairman, Stirling and Clackmannan Local Pharmaceutical Committee.

Mr. William James Younger Hogg, J.P., Selkirk. Registered 1943. Proprietor pharmacist for the past cleven years after experience in hospital and general practice. A member, Pharmaceutical General Council (Scotland) for three years and of the Roxburgh, Berwick and Selkirk Pharmaceutical Committee and its Pharmaceutical Services Committee for six years. A member of committee, Edinburgh and South-eastern Scottish Branch.

Mr. Adam Brown Allan Hunter, J.P. Bonnyrigg, Midlothian. - Registered 1937. Formerly a representative, now proprietor pharmacist. A member, Bonnyrigg and Lasswade town council for twenty-two years, a former provost and at present senior magistrate. A member, Midlothian County Council and chairman, county planning committee.

Mr. David Campbell Mair, Glasgow .--Registered 1958 after studying at Royal College of Science and Technology, Glasgow. Practical training at Western Infirmary, Glasgow; national service in R.A.M.C. Proprietor pharmacist. A member, Scottish Executive since 1965. Appointed to general practice sub-committee of Council in 1967. A member, Glasgow Local Pharmaceutical Committee and member of committee, Glasgow and West of Scotland Branch. President, Glasgow Pharmacy Club.

MR. ROBERT SIMPSON MORRISON, Inverness. - Registered 1939. A partner in general practice. A member of Scottish Executive since 1959. A member, Pharmaceutical General Council (Scotland) and o its Standing Committee, Chairman, Loca Pharmaceutical Committee; a member Pharmaceutical Services Committee. A former secretary and treasurer, Norther Scottish Branch; present secretary an treasurer, Inverness Pharmacists' Associa tion. Chairman, group of pharmacist controlling Scottish Pharmacist.

Mr. David Caird Cornfoot Wallace Dundee. — Registered 1938. Proprieto pharmacist. Secretary, Dundee and Eas of Scotland Branch since 1950; a membe council, Scottish Pharmaceutics Federation, since 1956. Secretary, Dunde Retail Pharmacists' Association 1955-62.

## PRESERVATIVES IN PHARMACEUTICALS

Chelsea course shows way to a rational approach

IN recent times Pseudomonas aeruginosa infections have been traced to eye drops, saline, creams and lignocaine jelly, but not until the publication in 1965 of a report to the Swedish National Board of Health was it realised to what extent many pharmaceutical products could be contaminated. In that study several potential pathogens (Staphylococcus aureus, streptococci and Pseudomonas aeruginosa) were isolated.

To provide information on preservation problems Chelsea College pharmacy department recently launched two extension courses, the first a series of evening lectures and the second, organised and presented by the pharmaceutical microbiology group, a four-day residential course on "Para-meters of Preservatives." The number of participants was limited in order to ensure optimal laboratory facilities. Of the twenty who enrolled one represented hospital pharmacy; the others came mainly from the pharmaceutical industry in Britain and the Continent.

Principal aim was to emphasise the fallacy of arbitrary addition of preservatives to formulations and to indicate a more rational approach, culminating in the use of mathematical models for predicting antimicrobial activity. What is important in both simple and complex formulations is the biologically available concentration of preservative. With phenolic substances, which have high concentration exponents, change of concentration has a marked effect on activity; the quaternary ammonium compounds and the mercurials are less affected, having low-value concentration exponents.

#### Influencing Factors

Biologically available concentration of the preservative is influenced by many factors. Organic matter and particulate substances in suspension may reduce activity by adsorbing the pre-servative. Loss of phenol by adsorp-tion on suspended solids has been demonstrated by Bean and Dempsey. Suspending and emulsifying agents such as tragacanth, sodium carboxy-methylcellulose and acacia effectively reduce the antibacterial activity of antibiotics. Phenolic substances are ineffective preservatives for some systems containing non-ionic surfactants and the activity of many others is reduced

in the presence of non-ionic surfac tants.

In systems analagous to suspension (oil-water mixtures and emulsions) th partition coefficient of the preservativ and the oil-water ratio control the con centration in the aqueous phase and determine whether a product is add quately preserved, since micro-organ isms normally reside and grow only i the presence of water. Rise of tem perature generally increases antimicro bial activity but may, in oil-water sys tems, alter the partition coefficient. It alteration in favour of the oil phas may offset increased activity due trise of temperature. Another relevan factor is ph. Benzoic acid, for example with a pKa of 4.2 is less active in alka line than in acidic conditions. Here th unionised molecule is the more active Preservatives interact with containe materials, and bactericides have bee shown to be lost from certain solu shown to be lost from certain solutions packed in bottles with rubbe caps, while phenol and chlorocresc are taken up by both cellulose acetat and nylon but not by polypropylene.

The course considered, in additio. to factors influencing biological avail ability, the evaluation of preservatives It critically examined qualitative and quantitative methods for assessing anti bacterial and antifungal activity. Appli cants were so many that a repeat i being held from December 30, 1968 to January 2, 1969.



OLD FRIENDS TOGETHER: Mr. R, F Tomlinson (right), photographed with Mr F. W. Adams at a luncheon given in Mr Tomlinson's honour by Burroughs Wellcom & Co. on the occasion of his retirement a a director of Chas, Zinmermann & Co., Ltd. chemical merchants, recently. The two joiner their respective companies on the same almost forty-nine years ago, and from thei on Mr. Tomlinson has made a weekly business call on Mr. Adams, who is assistant manager of Wellcome's buying division.

#### IN PARLIAMENT

#### BY A MEMBER OF THE PRESS GALLERY, HOUSE OF COMMONS

WHEN prescription charges are reintroduced on June 10, 40 per cent. of the population of England and Wales will be exempt ,said MR. KENNETH ROBINSON (Minister of Health) on May 30 when replying to a prayer against the regulations that impose the charge.

MR. L. PAVITT, who moved the annulment, said that, in spite of exemptions, the sick and disabled would be caught and the healthy would be free. He asked the Minister the cost of sample checking against cheating, how many more staff would be required in the pharmacy departments of hospitals to operate the scheme and what had been the total cost of the scheme. DAME JOAN VICKERS also wanted to know how much money was being saved.

MR. A. EADIE said he understood that 50 per cent. of the people in Scotland would be covered by exemptions. He had grave doubts whether the scheme would work in Scotland as pharmacists were in dispute about the working of it. He read the following telegram signed by the Pharmaceutical General Council in Scotland;

Scottish chemist contractors have been unable to reach agreement in Whitley Council on payment for operating prescription charges scheme. Request you approach Secretary of State on chemists' behalf. Gladly supply further details by telephone.

A practising pharmacist in Mr. Eadie's constituency had drawn attention to the difficulty of dealing with patients who did not have the money to pay for the prescriptions, also with those who wanted to take part only of the items. Those things had happened under the old scheme and would do so again, "There speaks the voice of experiece," said Mr. Eadie.

#### Cost of Checking

MR. ROBINSON, replying, said that it had been possible to hold back the reintroduction of charges so that the exemption arrangements could be operated simultaneously. Cost of checking exemptions would be between £50,000 and £70,000 a year. The Press campaign would cost about £70,000 and running costs about £250,000 (1 per cent.) of the total saving. It was difficult to say what extra staff would be needed in hospital pharmacies "but it will certainly be very small," he said. The arrangements "had been worked out" in cojunction with the medical and pharmaceutical professions, Extra burden will fall on both professions—chemists in particular have a vital part to play . . I am grateful to all concerned for their co-operation." For those not chronically ill, but who needed unusually frequent prescriptions the scheme for purchase of certificates would, he hoped, be operating "by the winter." The certificates would be issued for a fixed period at a cost of about 1s, 3d, a week.

would be issued for a fixed period at a cost of about 1s. 3d. a week.

DR. M. P. WINSTANLEY asked why should there be a bigger charge if there were more items. The charge should be for the service. People went to pharmacists with prescriptions which the pharmacist had every reason to believe necessary and said that they

did not have the money. The pharmacist issued the prescription. Sometimes he got the money and sometimes not. Others took in prescriptions which it was clear had been issued for something important, but which had not been presented for several days after the issue. In other words, people delayed receiving treatment purely for economic reasons. The prayer was defeated by 129 votes to 52.

In a written answer on the same day

In a written answer on the same day DR. J. DUNWOODY asked the Minister for an estimate of the revenue that would be obtained from prescription charges paid between June 10 and the date of the introduction of any additional means of relief. MR. ROBINSON:

No such estimate is possible.

MR. DAVID STEEL asked the Secretary for Scotland on May 29 his estimate of the administrative costs involved in exempting 2½ million of Scotland's five million population from N.H.S. charges. MR. W. Ross replied that it was difficult to identify those expenses with any accuracy but he expected the total administrative costs of reintroducing charges with exemptions under the interim scheme would be between £50,000 and £75,000, much of it for publicity purposes

of it for publicity purposes.

MR. ROBINSON in a written answer on May 31 told Mr. R. Johnston that prescription payments by patients were were expected to account for £16-£17 million of the overall saving of £25 million a year accruing from the reintroduction of charges.

## LEGAL REPORTS

#### Stole from Employer

AT Old Street, London, magistrates' court, on May 18, Mrs. J. F. Wright, 17 Mansfield Hill, London, E.4, was placed on probation for two years. She had pleaded guilty to stealing sundries worth £150 from her employers, Eastern Chemists, Ltd.. Amhurst Road, London, E.8. The employers described defendant as "a marvellous worker."

#### **Tetracycline Action**

THE United States parent company of Pfizer, Ltd., Sandwich, Kent (Pfizer Corporation), have commenced two actions claiming infringement of the Corporation's United Kingdom patent covering tetracycline by the sale and supply of Co-Caps tetracycline hydrochloride capsules. The defendant in one of the actions is Macarthys, Ltd., Romford, Essex, and in the other Paramount Court Pharmacy, Ltd., 155 Tottenham Court Road, London, W.1. The patent concerned covers tetracycline both in its basic form and as a salt.

#### Nine-Year Sentence on Pharmacist

A PHARMACIST, Mr. Victor James Kapur, Lullington Garth, London, N.11, was sentenced at the Central Criminal Court, London, on May 31 to nine years' imprisonment for conspiring to manufacture LSD in contravention of the Drugs (Prevention of Misuse) Act, 1964. The quantities involved, according to the Crown prose-

cutor, would have been worth £16 millions on the world's illicit markets. Mr. Kapur had pleaded guilty, and two other persons, Harry Nathan, antique dealer, London, S.E. (said to have been responsible for distributing the drug) and Mohammed Hassan Ally, self-employed dispenser, London, N.17, were found guilty on the same charge. The Recorder (Sir Carl Aavold), in passing sentence, said: "There can be no more hellish occupation than the manufacturing of this drug for widespread distribution, with its dangerous consequences to life and the character of those who indulge themselves in it." A fourth man, Abdul Alli, self-employed, London, N., was found not guilty on charges of conspiracy and of unlawfully possessing drugs and was discharged. Frederick Albert Farebrother, sales representative, Harlow, Essex, acquitted of conspiracy but found guilty on two charges of unlawfully possessing drugs, was fined £20. The prosecutor said that, after police observation outside a public house in Leicester Square on November 12, 1967, Nathan was found to have on him LSD estimated to be worth, on the illicit market £190,000. In Mr. Kapur's car were packets of ergotoxine (used in the manufacture of LSD), while at his laboratory in New North Road, London, N.1, equipment was found which appeared to have been used for making LSD. containing Several bottles hydrazine hydrate, which had been taken to the court as exhibits in the trial and kept overnight in a disused groundfloor cell, exploded in the cell. Police and specialists in handling dangerous chemicals took the other bottles away, packed in ice, and destroyed them.

#### **COMPANY NEWS**

Previous year's figures in parentheses

BOVRIL, LTD. — Pre-tax profit for 1967, £885,635 (loss £26,953); net profit, after tax, £644,659 (loss £72,670); total dividend 12 per cent. (unchanged).

GREEFF CHEMICALS HOLD-INGS, LTD.—Group profit for 1967, £303,156 (£382,402) before tax of £50,869 (£88,959). Dividend for year 9 per cent. (10 per cent.).

UNILEVER, LTD.—The company's offers for the whole of the issued share capital of Smith and Nephew Associated Companies, Ltd., have been allowed to lapse, as sufficient acceptances were not received.

N.V. CHEMISCHE FAB. NAAR-DEN. — Group net profits in 1967 rose by Fl.412,000 to Fl. 4·13m. and the operating surplus, after tax by Fl.425,536 to Fl.10·67m. Dividend is 14 per cent. (12½ per cent.). Exports accounted for 68·1 per cent. of parent company's turnover.

POTTER & MOORE, Ltd.—Negotiations are proceeding for the acquisition by E. C. de Witt & Co., Ltd., of the business (throughout the world) of Potter & Moore, Ltd. At present part of Albright & Wilson, Ltd., Potter & Moore have their headquarters at Leyton, London, E.10, and factories in Australia, South Africa and New Zealand. Messrs. de Witt intend

to maintain and actively promote the sale of the range on a world-wide basis. Date at which control is handed over is to be announced.

JEYES GROUP, LTD.—Profits, before tax, for 1968 are expected to be £600,000 (against £446,000 in 1967). The board will recommend dividends totalling elevenpence per share (8\frac{3}{4}\text{d}.). In view of performance and prospects of future growth greater than securities offered by Newton Chambers (C. & D., May 11, p. 415) they recommend shareholders to reject the latter's offer.

MILES INTERNATIONAL, INC.— The company, a subsidiary of Miles Laboratories, Inc., Elkhart, Indiana, U.S.A., propose to offer \$15 million principal amount subordinated guaranteed convertible debentures due 1993. The debentures are guaranteed on a subordinated basis and convertible into the common stock of Miles Laboratories on and after January 2, 1969.

#### **BUSINESS CHANGES**

MR. S. B. J. ELLIS, dispensing chemist and optician, is closing his business at 334 High Street, Chatham, after twenty-one years. He opens at 98 Palmerston Road on June 24.

### APPOINTMENTS Directors

DIVERSEY CORPORATION. — Mr. W. Cross, F.C.A. (managing director, Diversey, Ltd.), has been appointed a vice-president of the Corporation.

GLAXO GROUP, LTD.—Consequent upon the appointment of Mr. H. W. Palmer as a deputy chairman, Mr. W. J. Hurran, who has been appointed a group director, will on July 1 become managing director of Glaxo International, Ltd., an appointment formerly held by Mr. Palmer. Mr. Palmer will become deputy chairman of Glaxo International, Ltd. Mr. Hurran will relinquish his appointment as managing director, Glaxo Laboratories, Ltd., Mr. F. C. D. Back becoming managing director of that company on July 1.

#### **Executives**

CARLO ERBA (U.K.), LTD., have appointed Mr. R. G. John their southern regional manager, Mr. John was previously area manager for the southwest,

#### **PERSONALITIES**

DR. R. A. SMITH, C.B.E., F.R.S., formerly professor of physics, Massachusetts Institute of Technology, has been appointed principal and vice-chancellor of Heriot-Watt University, Edinburgh.

DR. W. G. STOLL, who is in overall charge of scientific research in the Geigy organisation, has been awarded an honorary Doctorate by the philosophical faculty of the University of Graz, Austria, in recognition of his scientific achievements in chemistry and of his services to research in the field of pharmaceutical chemistry at the University.

MR. COLIN GUNN, principal of Leicester School of Pharmacy since 1941, was presented recently with a cheque and a clock by members of the Leicester and Leicestershire Branch of the Pharmaceutical Society. The branch chairman (Mr. A. Ward Barton) made the formal presentation to Mr. Gunn, who is retiring shortly after nearly forty years at the School.

### **DEATHS**

BLANKLEY. — On May 18, Mr. Arthur William Blankley, M.P.S., 50 Patterdale Road, Woodthorpe, Nottingham, Mr. Blankley qualified in 1921

BREBNER.—Recently, Mr. Thomas Francis Brebner, M.P.S., 117 Cudworth Road, South Willesborough, Ashford, Kent, aged seventy-three. Mr. Brebner qualified in 1921. He opened the pharmacy in South Willesborough.

BROWNING.—On May 25, Mr.

Luther Boydell Browning, M.P.S., 13 Retford Court, Whitchurch, Cardiff, Glam. Mr. Browning qualified in 1937 and, after a few years in retail practice, entered the hospital service, becoming chief pharmacist of St. David's Hospital, Cardiff, a post he held until his death.

CORKILL.—On March 13, Mr. William Sydney Corkill, M.P.S., Riverside, Ramsey, Isle of Man, Mr. Corkill qualified in 1903.

MORLEY.—On May 24. Mr. Robin Clifton Morley, M.P.S., 12 Park Lane, Woodstock, Oxford, aged seventy-nine.

NEIL.—Recently, Mr. John A. Neil, M.P.S., 7 Middlefield Place, Aberdeen, aged seventy. Mr. Neil qualified in 1920 after serving his apprenticeship with Mr. William Turner in Aberdeen. Later he became a partner in the firm of Charles Coutts, Schoolhill, retiring three years ago.

## TRADE NOTES

**Down in Price in July.**—Beecham Research Laboratories, Great West Road, Brentford, Middlesex, are reducing the price of Pyopen (carbenicillin) by 20 per cent. on July 1.

Holiday Closing.—The works and offices of Earex, Ltd., 23 Tulketh Street, Southport, Lancs, will be closed for holidays on the dates indicated:—From Friday evening, June 7, reopening Monday, June 24; and from Friday, August 16, reopening Tuesday, September 3.

Not in Sunlight.—Unicliffe, Ltd., Unimart House, Stonar, Sandwich, Kent, point out that Trimitts break (see C. & D., May 18, p. 418), being a chocolate product, should not be displayed in any position where direct sunlight or other heat source can affect it.

Additional Form and Strength. — Dista Products, Ltd., Fleming Road, Speke, Liverpool, 24, are marketing, on June 10, 250-mgm. tablets of Dpenicillamine base in addition to the capsules of 150 mgm. D-penicillamine hydrochloride already available. Both presentations have the new brand name Distamine and are in bottles of 100.

Soap Tablet Reshaped.—Bronnley & Co., Ltd., Brackley, Northants, have redesigned the shape of their de-luxe lavender, English roses and English fern soaps. The oblong white tablet has been replaced by an oval, ringed with formalised flower design, each fragrance in matching colour (lavender: pale blue in turquoise; English roses: baby-pink in scarlet; and English fern soft green in sage).

A Wholesale Depôt for Southampton.—To improve their services to pharmacists and hospitals in the Southampton and Portsmouth area, Vestric, Ltd., recently opened a new branch at Botley, nr. Southampton, Hants, till now served by a twice-a-week delivery service from Reading. The new branch operates a twice-daily "ethical" and photographic delivery in the Southampton area and it is being extended to Portsmouth within the next few weeks. Manager is Mr. D. B. Selby, M.P.S.

Seventy-five Years Old.—Phillips Scott & Turner Co., 2 St. Mark's Hill,

Surbiton, Surrey, are suitably celebrat-ing the fact that Andrews liver salt has now been on the market seventy-five years. In 1894 Mr. Scott, a provision importer for grocery and drysaltery wares in Newcastle, and his commission agent, Mr. Turner, went into business together to sell a new effervescent health salt compounded from materials then being sold by the company in separate penny and halfpenny packets. The product was named after the church of St. Andrew's opposite the firm's warehouse. A new factory planned and commenced in 1914 was commandeered by the War Office, but when the 1914-18 war ended the new plant made and filled tins at a speed of 150 a minute. The 1939-45 war intervened to impede full use of a larger factory then just built. In 1956 a new £2 million factory scheme complete with chemical works, research and testing laboratorics and tinplate factory was completed at Fawdon, Newcastle. The design of the Andrews tin has been changed by stages over the years. Present design was introduced in 1965.

#### **Bonus Offers**

CALMIC, LTD., Crewe, Ches. Drapolene. Thirteen invoiced as twelve on order for 6 doz. or more placed direct. Till July 31.

COLGATE-PALMOLIVE, LTD., London. W.I. Ultra Brite tooth-paste. 5s. voucher (redeemable by wholesaler) with orders accepted up to August 30.

#### Premium Offers

ELIZABETH ARDEN, LTD., 25 Old Bond Street, London, W.1. Blue Grass flower mist spray and moisture bath at price of flower mist spray. Till June 29.

HELENA RUBINSTEIN, LTD., 3 Grafton Street London, W.I. Tang after-shave lotion with miniature bottle of new Tang hair groom at price of after-shave lotion. The hair groom is a light textured non-greasy lotion containing anti-dandruff ingredient.

PHILLIPS SCOTT & TURNER Co., 2 St. Mark: Hill, Surbiton, Surrey. Tea towel bearing design. To celebrate the 75th year of Andrew-they are producing one of the old Andrew-posters printed on Irish linen as a premium offer. It is the colourful John Hassall poste (red-waistcoated man with slogan "I mushave left it behind") or a modern posted design. Each is free on proof of purchase

## **NEW PRODUCTS AND PACKS**

#### HARMACEUTICAL SPECIALITIES

Management of Haemorrhoids. — The preparation for haemorrhoids to re launched by Moore Medicinal Products, Ltd., Waverley House, Aberdeen, will be known as Haemovin and not as stated in describing the product last week (p. 489). It becomes available on line 10.

A Drug Against Depression.—Horlicks Pharmaceuticals, Ltd., Orchard Lea, Winkfield, Berks, have launched in the United Kingdom a new speciality Idemin, which is indicated in the management of depression, particularly where there is accompanying anxiety, insomnia or agitation. The product is presented as pink scored tablets in bottle of 100, each tablet containing 400 mgm. of meprobamate and 1 mgm. of benactyzine hydrochloride. The product is under Schedule 4B of the Poisons Rules.

Soluble Analgesic.—Bayer Products Co., Winthrop House, Surbiton, Surrey, have launched a soluble, effervescing analgesic, Solpadeine, for the relief of persistent pain, particularly among the elderly. Each tablet contains 500 mgm. of paracetamol, 8 mgm. of codeine



phosphate and 30 mgm. of caffeine in an effervescent base containing sorbitol (recommended adult dose, two tablets in water every three or four hours). Children seven to twelve years old may be given ½-1 tablet. Solpadeine is being supplied in pack of fifteen strips of four foil-wrapped tablets for dispensing purposes only.



PROMOTED TO DOCTORS: Already familiar to hospital consultants, Magmilor vulvo-vaginitis treatment is now being promoted by the manufacturers, Calmic, Ltd., Crewe, Ches, to general medical practitioners throughout the country.

#### **VETERINARY SPECIALITIES**

Against Poultry Diseases.—Park Davis & Co., Staines Road, Hounslow,

Middlesex, are adding to their list of veterinary specialities Chloromycetin powder 5 per cent. (veterinary), a mixture in lactose from which an aqueous solution can be prepared. The product is intended for treating poultry diseases including salmonellosis (pullorum disease and fowl typhoid) infectious coryza, caecal and intestinal coccidiosis and secondary bacterial invaders of viral conditions (for example Newcastle disease). It is administered via the drinking water. For twenty-four hours after treatment with it poultry should not be used for human consumption. The containers are of 200 gm. and 2 kilos.

#### SUNDRIES

Scissor-tweezer.—Jay Glamour Products, Ltd., 1 Dyke Road Drive, Brighton, 6, have improved both the Easi-Tweezi scissor tweezer, which they have been marketing for some time, and its method of presentation. The



tweezer itself is claimed a much finer and more accurate appliance than the previous model, and able to extract "almost invisible and elusive" hairs.

#### HOUSEHOLD PRODUCTS

Liquid Dyes. — For the first time in this country Mayborn Products, Ltd., Dylon Works, Sydenham Road, London, S.E.26, are offering an instant, simple, speedy liquid dye for which no mixing or dissolving is necessary, the dye being prepared by the addition of hot water straight from the tap. The plastic bottle has its own measuring cup and there is no necessity to use

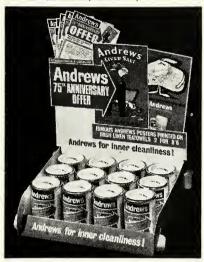


up the contents at any one dyeing session. After use, the cap is merely screwed on again ready for the next time. Dylon liquid may be used at any

time and in any quantity. The fifteen colours may if desired, be mixed, to obtain almost limitless new shades.

#### COSMETICS AND TOILETRIES

Make-up Brushes. — A series of seven brushes — each for a specific purpose in make-up — has been produced by L. Leichner (London), Ltd., 436 Essex Road, London, N.1.



SEVENTY-FIFTH ANNIVERSARY OFFER: Displaypiece showing tea towels offered by Phillips Scott & Turner Co. (see previous page).

#### PACKAGING NOTES

Sample Satchels.—A wallet containing samples of Certar satchels, wrapping paper and labels for chemists is available from Macdonald & Taylor, Ltd.. P.O. Box 6, Portland Mill, Ashton-under-Lyne, Lancs.

"Tamper-proof" Packs.—Smith Kline & French Laboratories, Ltd., Welwyn Garden City, Herts, are introducing tamper-proof packs for their solid-dose preparations. Constructed of plastics the new container includes a tear-off plastic band seal. Until the band is removed the cap cannot be lifted so



stockists can see at a glance if the pack has been opened. Excellent resealing properties are claimed for the cap, including protection against moisture. Concurrently the company are limiting container sizes to ten and modifying the label design to make the product name and strength quick and easy to read. Distribution of the first products in the new containers is expected to commence towards the end of June, and within three months 80 per cent. of all SK&F solid-dose preparations should be in plastic packs, within six months all products.

## End of the Road for Proposed By-law

## DETAILS OF LAW LORDS' UNANIMOUS FINDINGS

THE dismissal by the House of Lords on May 28 of the Pharmaceutical Society's appeal against the decision of the Court of Appeal in the case Dickson v. Pharmaceutical Society was, as already stated (C. & D., June 1, p. 483), unanimous. Principal points at issue were whether the Council was within its powers in bringing a proposed new rule in to the Statement Upon Matters of Conduct that, in any new pharmacy from a certain date, the range of products on sale should be restricted in certain specified ways, or in existing pharmacies not extended. The five Lords who heard the appeal were Lords Reid (who presided), Morris of Borth-y-Gest, Hodson, Up-john and Wilberforce, Each reached his decision on individual considerations, which are here summarised:

LORD REID: It is claimed, I think rightly, that pharmacy is a profession; before one can become registered it is necessary to pass a wide-ranging examination, and the work of a pharmacist in dispensing medicine is highly skilled and responsible. A main object of the Society is "to maintain the honour and safeguard and promote the interests of the members in their exercise of the profession of pharmacy." Rules for the guidance of members have been adopted from time to time, and when necessary the Council of the Society seeks to enforce those rules by bringing pressure to bear to secure compliance with them. A Statutory Committee has power to order removal from the register of the name of a pharmacist who has been guilty of misconduct.

#### Must Trade to Survive

That pharmacists should be engaged in trade is regarded by many pharmacists as undersirable, but it is generally recognised that comparatively chemists' shops could survive without engaging in some degree of trading. Present policy of the Council is to restrict trading activities so far as economically practicable, and to ensure that such activities are carried on in a manner compatible with the professional character of pharmacists.

A motion passed by a large majority of members on July 25, 1965, provided that new pharmacies should be situated only in physically distinct premises and devoted solely to professional services; to certain defined, non-professional services; and to such other services as might be approved by the Council; and that the range of services in existing pharmacies, or pharmacy departments of larger establishments, should not be extended beyond present limits except as approved by the Council.

Mr Dickson, a director of Boots Pure Drug Co., Ltd., and a member of the Society, sought a declaration and injunction, and on June 23, 1966, an order was made declaring that it was not within the powers, purposes or objects of the Society to attempt to

enforce or carry out the provisions of the proposed rule, whose provisions were in restraint of trade. The contention of the Society that there was no justiciable issue must be rejected. If the motion stood, a pharmacist who did not so restrict his trade would be at risk of being found guilty of mis-conduct and of being deprived of his professional qualification.

#### Power of the Court

In my judgment the Court has power and duty to determine that question. Normally a code of conduct is a domestic matter within the profession, but it appears to me that, if a member of a profession can show that a particular restriction on his activities goes beyond anything that can reasonably be related to the maintenance of professional honour or standards, the Court must be able to intervene. It becomes a question whether those restrictions can properly be related to the maintenance or improvement of status of the profession.

That the restrictions are in restraint of trade cannot be doubted. The restraint may make the business so unprofitable that the shop has to be closed. The respondent argues that, as this motion would operate in restraint of trade, the ordinary principles of restraint of trade apply, so that the appellants must plead and prove justification. I am doubtful whether that is so where restraints exist as part of a code of professional conduct. If the ordinary rule were to apply, any member of a profession who wanted to make more money by disregarding some long-standing rule of professional conduct could require the restraint to be justified without himself having to allege and prove that the rule was un-reasonable. The onus would be on the body defending the standards of the profession and, unless the tests laid down in the authorities are to be altered, I do not see how the Court could limit the extent to which it would interfere in the domestic affairs of the profession. I do not think it is necessary to pursue the general ques-tion of ordinary rules of restraint of trade, because I am of the opinion that these restraints cannot reasonably be related to the objects of the Society. The appellants' pleadings are silent on this matter and the evidence is vague. But suggestions were made that the adoption of the motion would make the profession more attractive to new entrants; that it would avoid pharmacists being distracted from their professional work; and that it would raise, or prevent lowering, the status of the profession.

The first of those points is not now maintained. Such evidence as there is indicates that entrants tend to go where there is trading as well as professional work because prospects are better. The second could be a formidable point but it is not supported by the evidence. The third point is now chiefly

relied on. But there is no evidence that members of the public, or indeed members of the Society, have a higher opinion of the pharmacist who does not sell non-traditional goods than they have of a pharmacist who does. I could well understand that status would be improved by only selling high-class goods, or by limiting the proportion of trading to professional work, or by having premises of dignified appearance. But the motion has not been related to such considerations. It permits the sale of lower-class traditional goods to any extent but forbids even high-class non-traditional goods of a new character. I do not doubt that this motion was proposed and supported with the belief that it would assist in maintaining and raising the standards of the profession. But I can-not find, from the evidence or from common knowledge, any reasonable support for this belief. I must hold the motion to be intra vires.

LORD MORRIS of BORTH-Y-GEST: A considerable number of retail chemists sell goods which are in no way associated with pharmacy. It is widely accepted that it would not be economically practicable to provide dispensing services without at the same time selling pharmaceutical or professional goods.

Most pharmacists have thus dual rôles: that of the practitioner in pharmacy as such, and that of a retail trader. It has been the view of many that the sale of non-traditional goods, if carried on to any significant extent, is out of keeping with the practice of pharmacy. In pursuance of that view a plan was formed which, if fully observed, would clamp down on trading activities and impose restrictions in regard to new pharmacies. The motion that was carried was designed to give effect to the plan. Activities in trade as they have developed are not to be forbidden but certain extensions of them are only to be permitted if approved by the Council of the Society.

#### Objects of the Society

It becomes necessary to consider the objects and purposes of the Society. It was formed for the purpose of advancing chemistry and pharmacy and promoting a uniform system of education "of those who should practise the same and also for the protection of those who carry on the business of chemists and druggists" and for cer-tain benevolent purposes. In 1920 there was litigation (Jenkin v. The Pharmaceutical Society) to test the extent of the Society's powers under the Royal Charter and Pharmacy Acts. It was held, inter alia, that it was not within the objects, powers or purposes of the Society to regulate the hours of business of members or to regulate the wages and conditions of employment as between master and employee members of the Society or to regulate the prices at which members might sell

neir goods. Soon after that case a rade union was formed (the National harmaceutical Union), which has ealt with matters relating to the tradng interest of owners of pharmacies. Iter the passing of the Pharmacy Act, 953, the Society was granted a Supplemental Charter and now functions under it.

The Council of the Society issue a statement Upon Matters of Professional Conduct in which it is recited hat the Statement is not primarily a passis for applying compulsion but a neans of assisting pharmacists to disharge the moral obligation resting pon them to observe standards of onduct appropriate to their calling. The acknowledged intention is to incorporate the terms of the motion in he Statement, and the inquiry is at more raised what ethical concept there s which requires a retail trader to be orbidden for the future from varying he range of the articles that he sells. Further inquiry is prompted as to the ource of any power in the Society to any down the rules which the motion imbodies.

#### 'Decades Too Late"

The only object of the Society set out in the Charter which seems relevant is contained in the words naintain the honour and safeguard and n their exercise of the profession of charmacy." It is a great many decades too late to suggest that the honour" of pharmacists is tarnished f they concern themselves with activities other than those which are fairly closely akin to those of pharmacy. Where, then, is the power in a Society oncerned to safeguard and promote he interests of members "in the exercise of the profession of pharmacy" to prescribe and limit and control those offairs of members which do not reate to the profession of pharmacy but which, as has for a long time been accepted, can properly and respectably be undertaken? I have no doubt that there could be some trading activities which it would be undesirable for pharmacists to undertake in conjunction with their professional activities as pharmacists. The motion now being considered has, however, no specific activities in contemplation. If it is to be justified it needs a link with the interests of pharmacists in their professional work. Evidence was given by witnesses who felt that the status of pharmacy should be higher than it is and who considered that extensive retail trading in extraneous goods diminished respect for the profession. While I can appreciate and respect the point of view of those who feel that retail trading has already reached or perhaps passed what they regard as the desirable limits, and who fear that any extension of it might be at the expense of the image of the profession, I do not consider that the evidence established that professional standards have been eroded by reason of the fact that members of the Society have both carried on trade and carried on their profession. Nothing adversely affecting the exercise of the profession of

pharmacy" was shown by the evidence to be taking place which could entitle the Society to interfere with the freedom of members in the exercise of trading activities which they have for so long been entitled to undertake. I do not think that it is within the powers or purposes of the Society to control such selling activities as do not interfere with the proper performance of professional pharmaceutical duties.

#### **Professions Must Decide**

That would have to be proved. I do not think that it was proved in this case. It will normally be for a profession itself to decide in regard to its standards and its codes of behaviour and the mere fact that rules are laid down which are severely restrictive will not warrant attack upon them if, in the interests of members and in the public interest, such rules are reasonable. I do not consider that it is within the objects and the purposes of the Society to impose the bans and the restrictions which the motion contains.

Contentions that neither the Statement nor the motion was justiciable appear to me to ignore realities. If the motion becomes operative it will be the view of the Council that a failure to comply with the terms of it will be misconduct. The Society will take such steps as they can to make members conform. If persuasion fails, the Society will take steps to bring a member before the Statutory Committee. It is true that the Committee could take the view that a member was in no way obliged to conform to the limitations, but I see no reason why a member should wait for such a decision. If the Society have no right to impose restrictions I think the respondent is entitled to come to Court now and to seek the declaration and the injunction which he obtained. It does not seem to me that the evidence established that the restraint was reasonable. I think that the Society should have regard to the interests of the public as well as of members, and one feature of the public interest is that trade should not be restricted without good reason. Such restrictions are either necessary or desirable for maintaining the honour or for promoting the interests of members. When once the respondent had shown that the requirement being imposed upon him would operate as a restraint of trade then, irrespective of where the onus of proof lay, the question the Court had to decide was whether the undoubted restraint of trade could reasonably be imposed by the Society. The law has always discountenanced restraints upon trade. On what basis could it be said that the particular restraint was reas-onable or desirable or necessary? The only basis advanced was founded upon the three suggestions already noted. As they lacked adequate substance no sufficient justification existed for requiring or imposing the restraints.

LORD HODSON: The code of

tORD HODSON: The code of ethics, on its face, does not purport to be enforceable. Nevertheless, though binding in the strict sense only in honour, the code is complied with by 90 per cent. of the members, and the

Society intends to take steps to carry out the motion by correspondence, inspection and, in the last resort, by initiating and prosecuting proceedings before the Statutory Committee. That Committee provides the only effective means of compulsion. The fact that the Council may refer to it cases which they regard as objectionable founds no legal claim, such as would be contained in any enforceable bylaw. That the word "should," not "must," is used in the motion is perhaps a distinction without a difference. A real threat hangs over the heads of those affected by the proposed rule and such persons are entitled to know where they stand. If the rule is bad as being in unreasonable restraint of trade it will in any event be outside the limits imposed on the Society by its Charter. I agree that the restraint here cannot be justified as reasonable either in the public interest or in the private interest of the parties.

private interest of the parties.

LORD UPJOHN: The evidence showed that the Statutory Committee is in truth highly independent and that, over the years, a succession of eminent chairmen had not hesitated, much to the disappointment of the Council, to exercise their powers to stop proceedings at an early stage. But this means no more than that, like any police force, the Council are not judges in their own cause. The evidence also established that, by every peaceful method available to the Council, they endeavour in practice to enforce their code of ethics upon their members, and they have been very successful.

#### No Reason to Wait

To contend that a trader cannot resort to law to prove that such pressures ought not lawfully to be brought is untenable. It was said that, in any event, the action was premature. The objecting member must wait, apparently, until the Council think fit to bring him before the Statutory Committee, it may be years later—for it was said there was no immediate threat to do so. As a matter of common sense this is most unreasonable. Why should a trader be put into the position where he may expend large sums on expanding his trading activi-ties in defiance of the code of ethics and then be compelled to wait until, at some indefinite time in the future, the Council choose to bring him before the Statutory Committee for his alleged misconduct, and only then, possibly, he finds all his hard work and expenditure rendered useless. The law is full of examples to show that a person whose freedom of activity is challenged can in a proper case have the issue determined so that he knows where he stands.

The respondent is also entitled to come to the Court and complain that the appellant Society is proposing to go outside the expressed terms of the Charter and ask for an injunction to restrain it from doing so. So the first issue in my opinion fails.

The second issue depends not upon the doctrine that, at common law a chartered corporation has all the powers of an individual and can legally and lawfully extend its activities beyond the objects of its Charter and indeed carry out activities prohibited by the Charter, but its members, and only its members, can complain for if the corporation goes outside its expressed objects, the Crown may by scire facias proceed to for-feit the Charter; any member can, therefore, apply to the Court to prohibit the corporation from risking such forfeiture by continuing such such forfeiture by continuing such activities, All this is explained in the lucid judgment of Peterson J. in the Jenkin casc. So the respondent is entitled to an injunction if he can show that the July 1965 motion goes outside the expressed objects of the Charter. On the facts this point did not appeal to the learned trial judge nor to Lord Denning but Lord Sachs felt serious doubts about it, I think his doubts are justified. Prima facie, the appellant Society will exceed the purely professional objects of the Charter if it tries to regulate the trading side of the occupation of a pharmacist, but this consideration alone cannot determine the matter. In the interest of and for the advancement of the profession of pharmacy it may be legitimate to control, regulate and re-strict the members' trading activities. But clearly the appellant Society must establish this. They tried to establish it that increased trading would lower the status of the professional pharmaceutist but so little was the evidence on this point that it was not mentioned in the careful judgment of Mr. Justice Pennycuick. On this ground alone the respondent, as a member of the appellant Society, is entitled to hold the declaration and injunction he has obtained.

#### Restraints of Trade

On the issue of restraint of trade, the basis of the argument of the Society was that the well known principles based on the dislike of the common low of restraints of trade and their consequent invalidity, unless in particular circumstances such restraint could be justified, had no application to professional activities. I am entirely unable to accept the argument that professional bodies are outside the general doctrine of restraint of trade.

The reason why this doctrine, as affecting involuntary restraints, has not been applied to a profession in any reported case is not because it is exempt from the doctrine. It is because, in applying the doctrine to a profession the additional relevant circumstance has to be considered. The profession calls on its members to serve (no doubt for reward) the public by offering to them highly technical and always confidential advice and services which require a different standard of conduct from the tradesman. Its members stand in a different relationship altogether from the man doing ordinary business. So much so that in many cases they are presumed to exert an undue influence upon the client. No close definition can be given for bodies are always, rightly, breaking into the professional area and the pharmaceutical profession forms a welcome example of it. Those seeking the advice

of a professional man are entitled to expect of him the highest standards of ethical conduct. The professional man must submit to some restraints of trade such as a prohibition against advertising and a refusal, by undercutting or otherwise, to snatch work from another practitioner. The restraints upon professional men are justifiable in law for they are necessary in the interest not only of the profession but of the public. But what happened at the trial was that counsel for the appellant Society stood upon the submission that the doctrine of restraint of trade did not arise, and he refused categorically to plead that the restraint imposed by the July motion was reasonable in the interests of the profession and of the public.

#### July 1965 Motion "Not Reasonable"

I think that, it having been held, as I think quite correctly, that the July motion was in restraint of trade, and as the appellant Society refused to set up any test of reasonableness, that concluded the action. The Court of Appeal, however, having treated the matter as a pleading point, went into the question of reasonableness in the interests of the profession. They came to the conclusion that the July motion was not reasonable, and I agree.

was not reasonable, and I agree.

LORD WILBERFORCE: No existing or intending pharmacist or "comcan organise his busipany chemist" ness unless he knows whether and how far he or it is bound by these rules of conduct. To suggest that his proper course is to defend himself before the Disciplinary Committee of the Society and possibly then appeal to the High Court is, in my opinion, untenable. Equally unmaintainable, in my judgment, is the argument that no invalidating declaration can be made because the rule is merely hortatory and has no binding effect. The Statutory Committee forms its own opinion as to what amounts to professional misconduct, but would be influenced by the opinion of the Council, and even more by the terms of a resolution passed by the members in a general meeting. A pharmacist has a clear legal right not to be put in jeopardy of his livelihood under an invalid rule.

I have come to the conclusion that the regulations contained in the motion have too slender a connection or link with the relevant object (the members' professional interests) to be a justified exercise of the Society's

rule-making powers.

The regulations fall clearly within the field hived off after 1921 to the National Pharmaceutical Union. The Society's evidence at the trial signally failed to establish any significant connection with members' professional intests. A number of witnesses referred to the question of status but none of them was able successfully to relate the particular regulation to that objective. The haphazard and arbitrary character of the rule has those qualities to a degree which far exceeds what is imposed by the irregularity of the subject-matter. I would therefore reject the motion on the simple ground that it is ultra vires. The motion is plainly, on its face, in restraint of

trade. It must be remembered, in case conclusions are sought to be drawn from this case which may affect other professions, that this is a trading profession. The restrictions are aimed at and affect its trading side: the restraint is of a trade actually and legitimately carried on. It is of no materiality that members are not contractually bound to observe the rule. The difficulty is at the next stage, when it has to be decided whether the restraint can be The appellants did not, as upheld. they might have done, seek to justify the restraints as reasonable. In the circumstances it would be no mere technicality to say that, no case having been made for upholding the re-straints, their invalidity inevitably follows. The action was dealt with on that basis, and, in my opinion, correctly.

If one is to go further, and, as the Court of Appeal did, give the appellants the benefit of a position they did not take up, one is faced with the difficulty that no issue has been stated in relation to which to judge the evidence. It would be for the appellants to define the manner in which the restraints are reasonable: in the interests of the Society, or of both, and to particularise the interests. That they have not done, and I do not think that it is for the Court to set up the necessary legal structure which the appellants have declined to set up. If moreover, one proceeds to weigh the considerations of public interest I think that equally the restraints do not survive the test. There is nothing here to displace the normal proposition that the public has, in the absence of countervailing considerations, an interest in men being able to trade freely in the goods which they judge the public wants and that these restraints clearly, severely and arbitrarily restrict that freedom. More special arguments to the effect that the restraints might cause a reduction in the number of pharmacies I would regard as less secure; before I could accept them I should require persuasion first that this type of consideration may properly be taken into account in relation to the common-law doctrine of restraint of trade. To demonstrate that a reduction in the number of pharmacies, if it were to result, is contrary to the public interest would require a far more extensive inquiry than has been attempted, and certainly cannot be assumed. I would dismiss the appeal.

#### Company Chemists' Statement

A spokesman for the Company Chemists' Association issued the following statement after the decision became known: "The Association is pleased that the lengthy litigation is now over. Their Lordships have confirmed the freedom of every retail chemist, while serving the public interest, to carry on his business without undue restriction." Boots who are the principal members of the Association, say: "There will be no change in our policy and we intend to operate as we have in the past, At the same time, we support fully the Pharmaceutical Society and we shall continue to promote the highest ethical standards."



For Retailer, Wholesaler and Manufacturer
ESTABLISHED 1859

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### Where From Here?

ONCE having decided to appeal against the High Court decision in the case *Dickson* v *Pharmaceutical Society*, the Council of the Society was right and under logical compulsion to take the matter through to the ultimate tribunal—to the bitter end as it must have proved to the Council.

There are those who, on grounds of cost or for other reasons, have maintained that the Council should have dropped the matter after the Appeal Court had found against the Society. We are not among them. The cost is a small factor by comparison with the ending of any remaining trace of uncertainty. Undoubtedly, without the final appeal to the Law Lords, there would still have been niggling doubts-among supporters whether they might not have won, among opponents whether their view had come to be accepted and their trading activities reasonably secure. Now no doubt remains. Trading matters cannot be made a ground on which the Pharmaceutical Society, a professional body, can prevent—even indirectly through the Statutory Committee—a member from pursuing his livelihood unless they impinge directly upon his ability to comply with his professional duties and responsibilities. There are those who will be surprised that the Jenkin case has "survived" the grant of a new Charter (which many thought restored to the Council powers in an area from which the Jenkin finding had excluded it). But there it is. The specific mention of the National Pharmaceutical Union by Lord Morris as having "dealt with matters relating to the trading interests of owners of pharmacies" appears to give the N.P.U. a reinforcement of its status and correspondingly to reduce the Society's standing on trading matters. The Council's concern with trading does not entirely disappear. It can still, by implication from Lord Reid's remarks, impose such trading restrictions as "can be related to the maintenance of improvement

of status of the profession." No doubt occasions will arise in the future, as they have arisen in the past, when the Society must warn its members to discontinue trading in products that have been shown to have toxic or other undesirable effects, or which it would be morally wrong for professional persons to disseminate. The professional man must, as Lord Up-john said, "submit to some restraints of trade (such as prohibition against advertising) where they are necessary to establish, sustain and promote the profession.' However, there must remain a vast field of trading in products that are not good or bad but indifferent or neutral so far as ethical considerations are concerned. Those the Council must now reconcile itself not to worry about, leaving to the National Pharmaceutical Union any aspects that may require corporate action (as, for example, action to safeguard the interests of pharmacists engaged in trading should they be under threat from any other commercial interests).

That is not to say that any pharmaceutical chemist or company would be acting wisely in rushing to widen the range of products dealt in. We do not think that was the intention even of Boots, Ltd., either in bringing the action or—more recently—in taking steps to acquire the Timothy Whites group. The statement (see p. 516) issued by the Company Chemists' Association says, among other things, "There will be no change in our policy, and we intend to operate as we have in the past. At the same time, we support fully the Pharmaceutical Society."

A hint of the proper long-term policy for pharmacists was perhaps given by Lord Reid. It is, with some classes of goods, to deal only in products of the highest quality and, with others, to be prepared to leave them to other traders to handle, even though the products may be of the highest quality of their kind.

Professionally, members of the Society should continue to strive to improve their standards. That is a commendable pursuit, as Lord Upjohn said, and professional ethics, as we have said in the past, are subject to evolutionary development in an upward direction.

## Overseas Trade in April

The high rate of United Kingdom exports of medicinal and pharmaceutical products noted so far this year was maintained during April. At £8·19 million for the month (£8·8 million with the addition of medicated and non-medicated dressings) they were at a peak level. The aggregate for the first four months of the year was £29·99 million against £25·08 million in the same period of 1967. Higher purchases by certain Continental countries helped to boost April's total. France, took £447,000; Belgium, £396,000; Western Germany, £379,000, Nether-

|                         |       | •                              |       | •                                  |       |
|-------------------------|-------|--------------------------------|-------|------------------------------------|-------|
| EXPORTS                 | £'000 |                                | £'000 |                                    | £'000 |
| Vitamins, bulk          | 191   | Organotherapeutic glands, etc. |       | Sulphonamides, bulk                | 136   |
| " products              | 149   | bulk                           | 22    | ,, tablets                         | 56    |
| Antibiotics             |       | ,, products                    | 13    | ,, other products                  | 45    |
| penicillin, bulk        | 94    | Sera and vaccines              | 207   | Proprietary medicines              | 2,123 |
| " products              | 836   | Aspirin, bulk                  | 56    | Unclassified medicines             | 1,583 |
| Other antibiotics, bulk | 707   | ,, products                    | 56    | IMPORTS                            |       |
|                         | 969   | Antihistamine products         | 92    | Vitamins                           | 123   |
| Alkaloids, bulk         | 169   | Antipaludics products          | 66    | Antibiotics                        | 337   |
| producto                | 24    | Barbiturates, bulk             | 72    | Alkaloids                          | 181   |
| ,, r                    |       | mraduata                       | 31    | Glycosides, glands, sera, vaccines |       |
| Hormones, bulk          | 172   | ***                            |       | Proprietary and veterinary medicin |       |
| " products              | 470   | Ointments, liniments*          | 96    | All other                          | 211   |
| Glycosides              | 20    | Surgical dressings             | 607   | * not specified elsewhere.         |       |

lands, £341,000 and Switzerland, £320,000. The Irish Republic, however, was the largest single customer with purchases at £472,000 while Australia, which was in the first position in March, dropped to sixth place with £375,000. Other large customers in April were the United States, with £392,000, Japan, £342,000; and South Africa, £335,000.

A "breakdown" of the export items as classified under

division 54 of the Overseas Trade Accounts (H.M. Stationery Office, price 30s.) is given in the accompanying table. It includes also a number of bulk pharmaceutical chemicals from another division also imports of division 54.

Imports of medicinal and pharmaceutical products cost £1,419,000; the United States supplying £293,000 and Western Germany £283,000.

# HOSPITAL PHARMACY FORUM CHANGING FACE OF HOSPITAL PHARMACY

By a HOSPITAL PHARMACIST

N an address which followed the presentation of the 1967 Merck Sharp & Dohme award, Mr. Graham Calder (group chief pharmacist, Aberdeen General Hospitals) put forward some interesting ideas about the future development of hospital pharmacy.

The Aberdeen system of drug distribution made individual dispensing for in-patients unnecessary, and at the Aberdeen Royal Infirmary it had been completely eliminated. Drugs were supplied to the wards in "unit packs" prepared by technicians using production-line techniques or purchased from the pharmaceutical industry, which was showing an increasing interest "in supplying the packs we want in the most suitable containers, with our own label, at an economic price." Ultimately he foresaw the establishment of large and well-equipped manufacturing units and laboratories, divorced from individual hospitals and providing such pharmaceutical supporting services as "sterile preparation, manufacturing and quality control." The pharmacist at hospital level would thus be free to participate more fully in the clinical area.

The type of organisation envisaged has much in common with that which already operates in Paris, Lyons and other large French cities, where one "factory" supplies the pharmaceutical needs of several thousand hospital beds. Those factorics are organised on industrial lines, so that one or two pharmacists can effectively supervise and manage the work of a large number of semi-skilled operatives. As a result, pharmaceutical staffing and accommodation requirements at hospital level are of a very low order. It seems to be unusual for even a large general hospital to employ more than one pharmacist, and a pharmaceutical department with a superficial area of 1,000 sq. ft. or even less is adequate to meet the needs of a 1,000 or 1,500 bedded hospital.

#### "Release" and What Would Follow

There can be no denying that the rationalisation of what Mr. Calder calls the "pharmaceutical supporting scrvices" would release a large number of pharmacists for other duties. An estimate of the number likely to become available can be made from the figures quoted in the report of the recent study tour of the Netherlands organised by the Institute of Pharmacy Management (C. & D., April 27, p. 380). We are informed that the Municipal and University Hospital at Utrecht employs only two pharmacists to serve 1,000 beds. The remainder of the total pharmaceutical staff of thirty-five is made up of analysts (two), technicians (fiftcen), pharmacy helpers (twelve) and administrators (four). In fact Holland, with a population of approximately 12 million, has only sixty hospital pharmacists altogether, and on that basis Britain would seem to need something less than 300. A rationalisation of the hospital pharmaceutical services along the lines suggested by Mr. Calder might therefore release three out of every four hospital pharmacists for full-time work in the clinical area.

However, there is likely to be little enthusiasm for such a radical change in the organisation of hospital pharmacy until the pharmacist's rôle in the treatment of patients has been worked out and agreed with the other professions concerned. So far there is little to suggest that the presence of a pharmacist on the ward brings about any change in the traditional division of responsibility. The doctor still decides what drugs are to be administered; the nurse is still responsible for administering them to the patient; and the pharmacist for making them available.

Up to the present there appears to have been no suggestion that the ward pharmacist should be brought in at the decision-making stage. His main job seems to be to ensure that decisions made by doctors are clearly expressed on the treatment sheet so that there is no danger that the nurse will misunderstand his instructions when she comes to administer the drug. He may, for instance, annotate a prescription for a drug prescribed under a proprietary name with the "approved" equivalent in order to make it correspond with that on the container from which the nurse will take the drug. Doctors, however, still have the right to insist that the actual brand ordered shall be supplied. The pharmacist will also tactfully draw attention to apparent errors in dosage or route of administration, and to possible therapeutic incompatibilities, but no variation of the doctor's instructions can be made without his explicit authority.

On the other hand there can be no doubt that the presence of a pharmacist on the ward does encourage consultation. Junior doctors are much more likely to seek his advice before making their decisions about what to prescribe when he is readily available, and because most junior doctors eventually become senior doctors, co-operation between the two professions is likely to improve with time. Nevertheless, all this should not blind us to the fact that, in the clinical area, the pharmacist must inevitably play second fiddle, even to the junior doctor, until the field in which he is accepted as the authority has been defined and agreed. Few of us have cause for complaint about the frequency with which our advice and help is sought at present. What we really resent is the doctors' freedom to ignore what we say, even on such strictly pharmaceutical questions as the presentation of drugs.

The root cause of the trouble is the failure of the pharmacist to establish his right to make decisions in his own specialty. Long-standing tradition demands that he should carry out the instructions of the doctor and not depart from them without first sceking permission. So long as he continues to be prohibited from using his specialist knowledge it will be difficult to resist the suggestion that pharmacists are technicians rather than professional scientists

It can, of course, be argued that a young house officer who has had a first-hand experience of the value of consultation with the ward pharmacist may, when he eventually becomes a consultant, be prepared to delegate some of his responsibility. It is just conceivable that he might invite the pharmacist to participate in ward rounds and allow him to make major decisions on treatment. If, for instance, he considered that a patient needed anti-coagulant

therapy he might leave to the pharmacist the choice of the actual drug to be given, and the dose. That idea is by no means new. It has been discussed in the pharmaceutical Press on numerous occasions, but few doctors indeed are yet aware that pharmacists have ambitions in that direction.

#### Pharmacists in the Clinical Area

Most consultants seem to accept, and even approve of, regular visits to their wards by the pharmacist, but the very suggestion that he should have authority to make decisions would almost certainly provoke a sharp reaction. Infiltration tactics may prove successful in the long term, but there can be no guarantee that that will be so. What we call the clinical area is, almost by definition, the preserve of those who are medically qualified. Technicians, medical auxiliaries and nurses, for whose actions a doctor remains ultimately responsible, are admitted without much difficulty, but the pharmacist claims to be a member of a profession separate from, and independent of, medicine. He is a member of the staff of a department of which the head is not medically qualified and he does not acknowledge the doctor as his superior officer. In consequence the medical profession may well find his terms for entry unacceptable.

There can surely be no doubt that the pharmacist can be admitted to the clinical area only with the full approval and consent of the doctors. If so, the time has come for him to decide what his terms for entry are to be and then to open formal discussions with the medical profession. Infiltration without laying down terms could, in less than ten years, turn him into a kind of medical "Jeeves," tactfully guiding his master in the way he should go, but knowing his place well enough to be able to beat a quick retreat whenever it became apparent that he had over-

stepped the mark.

During the past two years a great deal has been said and written about the function of the pharmacist in the clinical area, but one still looks in vain for some shred of evidence that the doctor is prepared to consider accepting him as a specialist colleague. He may be grateful for his help in ensuring safer medication procedures, and appreciate his ability to "tidy up" prescriptions and so relieve him of what he often regards as a tedious and relatively unimportant part of his job, but he is not willing to hand over any part of his responsibility. While the pharmacist continues to be prohibited from making an amendment to a prescription without first obtaining permission from the prescriber, the traditional master and servant relationship is in no danger, but let it be suggested that he should be allowed to take action on his own responsibility and the medical profession would rise up as one man to repel the invader.

Hospital pharmacists would therefore be well advised to think carefully before they decide to consign their autoclaves to the scrap heap and throw their newly acquired spectrophotometers out of the window in order to release staff for work in the clinical area. It could easily

prove to be nothing more than a mirage.

## Any Business Questions?

I am retired and drawing the State pension. I have been considering doing locum work, but I understand that this will affect my State pension. Is this correct? I expect to earn between £15 and £20 per week.

IF you are under 70 years old, those earnings wi'l certainly mean that you cease to be entitled to State pension. Where earnings exceed £6 11s, per week, pension ri hts are affected, and your earnings will result in your not being entitled to any pension.

I understand that, if I buy a pharmacy, I should insist on dividing the price for the lease and goodwill between those items. Have any special points to be kept in mind?

LEASES are wasting assets for capital gains purposes, whereas goodwill is not. Thus if you attribute too much to the lease you may lose the benefit of deducting a large part of that on a sale. It will therefore pay you to increase the amount attributed to goodwill at the expense of the amount attributed to the lease.

## From Apothecary to Pharmacist—Series 2

By T. D. WHITTET, B.SC., PH.D., F.P.S., F.R.I.C., D.B.A.



Photo by courtesy, Mr. J. T. MacDermott (professional services manager, Eastern European department, Winthrop Products, Ltd.)

#### BULGARIA

IN Bulgaría the pharmacy is called APTEKA, and the word for pharmacist is APTEKAR. No other titles appear to have been used. The Bulgarian word for pharmacopæia is PHAR-



A Bulgarian pharmacy bearing the titles Apteka and Pharmacie.

# Correspondence

Letters when received must bear the name and address of the sender, not necessarily for publication. The Editor does not hold himself responsible for the views expressed.

#### An Achievement

SIR, — Congratulations upon your remarkable effort in completing the latest edition of the C. & D. Quarterly Price List which arrived at my shop bang on time June 1. A. LEITER, London, N.12

#### Too Rosy a Picture?

SIR,—I would like to congratulate Mr. Fairhead for an excellent article on what a prospective production pharmacist should meet in industrial life. Indeed, I would like to doubly eongratulate him if he has found the idyllic state he writes about. While it might be useful in a publicity brochure, it could cause subsequent disillusionment to somebody who actually expects to find those conditions, I feel

that some mention should be have been made of the snags which are met and with which I am sure Mr. Fairhead and most other production pharmacists are familiar.

D. G. YOUNG,
Barkingside, Essex

#### One Does Meet a Few

SIR,—We filled the enclosed ["Meat a few"] order today as soon as the clue "to protect cabbage" was supplied.

M. A. HERRIOTT,
Brandon, Eire

#### **Absent Only Once**

SIR,—Mr. Bloomfield's attendance record for Council meetings over the past fourteen years seems to me anything but proud, if the article's meaning is as it reads on p. 415 of the May 11

issue of THE CHEMIST AND DRUGGIST. In days of increased pressures, higher tension and greater encroachment on all our time, a 50 per cent. attendance rate is nothing for an editor to boast about: it makes one wonder what sort of attendance record the remaining Council members have!

JOSEPHINE MCKIM, Guildford, Surrey

[In case any other reader should have done Mr. Bloomfield the injustice of supposing he repeatedly attended one meeting and missed the next for four-teen years, we apologise [even though to do so involves a further "encroach ment on all our time"] for our use of the words "every other" as meaning "on every occasion but the one cited."—EDITOR!

### Unfair to Wales?

SIR,—You state under "Scottish News" (C. & D., May 18, p. 432) that "the scheme [for collecting prescription charges] is similar to that being introduced in England. I would have preferred you to put "& Wales" as Wales is not covered by the expression now after the Welsh Language Act of July 1967 which annulled the Wales and Berwick Act of 1947. Many people in Wales like myself think it high time we had the same status as Scotland or Northern Ireland as we are as much a nation and now we have our own Secretary of State and Welsh Office. Let us hope that we are treated as a nation equally with the other countries of the United Kingdom.

J. H. ROBERTS, Rhyl, Flints

[No injustice to Wales was either intended or, we think, justly attributed to our paragraph, which also included the words "See C. & D., May 4, p. 390 and May 11, p. 413." P. 390 refers to "interim arrangements for England and Wales," p. 413 mentioning neither country. Our purpose was to indicate the scheme, not to delineate its area of application. Had we been referring to N.H.S. provisions common to Scotland and Northern Ireland (as some are) we should have thought it enough to mention one without supposing we had caused any injustice to the other. The time may well come when we shall have to contrast provisions applicable to England with those operating in Wales, but in the context of the paragraph quoted there seemed no value in emphasing that they were on an identical basis.—EDITOR].

## Conditioned

SIR.—Once again the Minister of Health has presented pharmacists with a fait accompli. This time, against our collective will, we have been dictated to garner the avalanche of half-crowns from the prescription charges. Only two days after the arrival of the mass of forms and instructions it was hardly surprising to receive a further batch of corrections and amendments, The compilers of the National Formulary

## "BLUE-PRINT" FOR ELECTORAL METHOD

#### Mr. Dengar Evans invites discussions and debate

SIR, — Your editorial "Reluctant Voters," and the letter from Mr. George Fox whose motion I was glad to support at the recent annual meeting of the Pharmaceutical Society, both underline the need for radical electoral reform to encourage a greater sense of involvement on the part of the individual pharmacist. Any electoral system, if it is to obtain maximum voting response, must be democratic and seen to be democratic. The obvious first step must surely be to augment the Council of the Society to a size that can match the present number of nearly 30,000 pharmacists on the register. The size of the present Council has not changed since the Society was granted its first Royal Charter in 1843 our correspondent overlooks the Privy Council nominees. — EDITOR], when the number of registered pharmacists must have been but a fraction of to-day's total. I think it reasonable to suggest an increase from twenty-one [elected] to thirty members. If that were done it would then be possible to devise a process of election more in keeping with our time. The atmosphere of anonymity that surrounds the pre-sent method of voting for names by post can no longer be tolerated. Avail-able statistics indicate that the "reluctant voter" will continue to increase so long as we expect people to vote in this impersonal manner. Yet nothing can be done unless Council agrees by a three-fourths majority and has its decision confirmed by a general meeting of members, also on a three-fourths majority basis. So those of us who believe that such changes are vital to the future well-being of our profession must mount a campaign to bring pressure on Council members and ascertain from candidates each year where they stand on these matters. I would like to give a brief outline of a system of election which I think would be better than the one we have. On the basis of a Council of thirty it would become possible to have six

nationally elected and twenty-four regional Councillors. That would give opportunity for sectional representation on the national level. Any dangers in sectional representation would be largely obviated by the minority situation of each section on the thirty-member Council. The six national representatives, elected every three years on a sectional basis, would be:—

| RETAIL   | Employee |   | 1 |
|----------|----------|---|---|
|          |          | • | 1 |
|          |          |   | 1 |
| INDUSTRY |          |   | 1 |
| ACADEMIC |          |   | 1 |
| HOSPITAL |          |   | 1 |

There would be one representative to each of the twenty-four regions or areas. Each area would contain 1,226 registered pharmacists, unless small numerical differences arose in suitably dividing the country.

The six national representatives would be elected by ballot at the Branch Representatives' meeting coinciding with the three-yearly election period for this part of the Council. If sectional representation were considered the most suitable method then each section would be required to give adequate proof that their nominee met with the majority approval of its members, and the Branch Representatives' meeting would have the power of endorsement or otherwise of the nominees. If non-sectional representation were preferred then each candidate would be nominated in the first place by ten registered pharmacists, and the nominated candidates would then be expected to address the Branch Representatives' meeting, questioned, and elected by ballot.

Regional representatives would be nominated by branches and elected in at regional conferences involving the whole membership resident in the area. I offer the above suggestions as a rough blue-print for further debate.

DENGAR EVANS, Llawishen, Cardiff

and the Poisons Rules have seen to that. The official details of the charges released in the Press will be incomprehensible to several million people. "These details may be difficult to remember," the statement blandly runs
"... so cut this notice out and keep
it for reference." Coming at a time
when hospital pharmacists are paid about as much as a dustman, and retail pharmacists struggle with the double burden of a ridiculously low oncost and the grossly unfair selective employment tax, these prescription charges seem to emphasise the emptiness of the Minister's coffers. And yet ness of the Minister's coffers. And yet one wonders. I had a conversation recently with an engaging representative whose job it is to persuade doctors to prescribe by brand name an overpriced antibiotic. He had plenty of samples apparently outside the restrictions of The Thermoutie Cult strictions of The Therapeutic Substances Act, a generous luncheon account for doctors and pharmacists, a nice set of teeth, and a minimal knowledge of pharmacy. Since he had been selling furniture a few weeks before,

the latter fact was hardly surprising. It is noticeable, too, that a reputable firm issue a pack of 24 x 50-mgm. tablets costing 20s., and a pack of 28 x 50-mgm. capsules of the same substance in a delayed release capsule which cost 41s. 2d. I cannot imagine the Ministry of Health granting a dispensing fee of roughly £1 for even a batch of hand-made pills rolled in gold leaf. It is obvious that a lot of money is being made from the Health Service, but not by pharmacists. We have been conditioned to this state of affairs for so long that we fail to consider it remarkable. The Ministerial bell rings and the salivary glands of the nation's pharmacists drip obediently. Is it too much to hope that this Pavlovian dripping may one day coalesce into a flood-tide of protest?

GEORGE WHITE, Birmingham

#### Candidates' Thanks

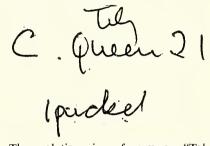
SIR,—May I be permitted the use of your columns to thank all those pharmacists who have supported me in the

recent Council election. I shall endeavour to be worthy of the confidence they have placed in me.

W. M. DARLING, Sunderland

## **Prescription Curiosity**

"ALTHOUGH I do not think," writes a Middlesex pharmacist, "that there is a great deal of 'mystery' in the enclosed script, I feel that it might give a little light relief."



The solution is, of course. "Tab Sequens 21. 1 packet."

## MEDICINES BILL IN COMMITTEE

## **Proceedings concluded in twenty sittings**

THE Committee stage of the Medicines Bill was concluded on May 30 after twenty sittings. When the Standing Committee met at the final session MR. M. MACMILLAN (leader of the Opposition group) tried to get the Committee to adjourn for a fortnight because of slow progress, "We have got to the last day before the Whitsun recess with so much unknown and so much apparently of the Minister's explanation as yet undefined."

planation as yet undefined."
Opposing the motion Mr. Kenneth
Robinson said "Even with the diversion we shall have, it will be easy to finish this Bill today. There are only two new clauses to the Bill." The motion being defeated, the Committee went on to discuss the new clauses, which dealt with (1) publications and (2) certificates for exporters of medi-cinal products. Moving the second reading of the first new clause, Mr. Robinson said the Government wanted to extend the power to prepare publications to cover not only compendia but periodical publications such as Prescriber's Journal. In an answer to MR. MACMILLAN he said the journals or periodicals would be issued free to doctors; the Medicines Commission would have full autonomy. On the second new clause Man Personal new clause and new clause man pour new clause new cl second new clause Mr. Robinson explained that the purpose was to provide for the issue of what the industry generally called "certificates of free Those were wanted in some overseas countries by importers as evidence that the products were of the same standard as those sold in the country of origin. Both new clauses were added to the Bill.

During discussion on an amendment to Schedule 2, Mr. Robinson said it was not the intention to charge for variations resulting from proposals initiated by the licensing authority itself. An amendment to Schedule 3 (sampling), which was agreed to, provides for arbitration to be by a single arbitrator appointed by agreement or, failing any agreement, by the county

When the Committee met on May 28, MR. E. OGDEN moved to clause 109 an amendment that would require courts to notify convictions to the Pharmaceutical Society within seven days. The fact that previous convictions recorded against a person were known had, he said, assisted courts in arriving at the appropriate sentence, following conviction. MR. ROBINSON declared that that went too far. Many offences that could arise under the Bill were in no sense the responsibility of the Pharmaceutical Society. The amendment was withdrawn and the clause agreed to.

Discussing clause 112, MR. T. FORTESCUE asked for more information on the fees to be charged by the Medicines Commission. Were they to be charged annually or for a five-year period; would the renewal be the same as the original fee; and would the fee be the same for a simple B.P. formula in small quantities as for drugs produced in large quantities?

He suspected, as "far too low" the figures given for Exchequer costs of administering the scheme (£350,000 a year in respect of Health Department).

MR. SCOTT-HOPKINS hoped that the licence fees would be used only to cover the operating costs of the licensing machinery, and not to finance the Commission's other operations as had happened when fee-raising bodies had been set up under other Bills. The Pharmaceutical Society would be reimbursed for the costs and expenses involved in prosecutions. It seemed that they would also be reimbursed for the costs incurred by inspectors in carrying out their work generally. That seemed to be a rather wide provision, he said. "The Society's costs would increase considerably if it had to carry out all the functions of a prosecuting authority."

MR. ROBINSON could give no specific information on the scale of fees. He said the Government had no reason to think that the estimates of Exchequer costs were out of line. The policy decision on the extent to which Exchequer costs of administering the Bill were to be charged directly on fees, as opposed to general taxation, had to be taken first. When that point of principle had been decided there would still be the difficult problem of allocating fees fairly as between different kinds of application. Some applications—especially those for basically new drugs, where a great deal of evidence had to be submitted for scrutiny—would be much more costly than others for the licensing authority to handle. In other countries the charges varied considerably.

The provision for the reimbursement of the Pharmaceutical Society applied to its reasonable enforcement expenditure under Clause 97(2). Those enforcement powers and duties were essentially a delegation from Ministers, and were the result of arrangements made with them or directions given to them by Ministers, Ministers did not meet the enforcement expenses of the Society and local authorities under subsections (3) to (5) of Clause 97.

The sitting (suspended for a Division in the House) continued with Mr. J. SNow (Parliamentary Secretary) deputising for the Minister. He spoke of the proposed change-over of responsibility for the British Pharmacopoeia. If early steps were taken after the Bill received the Royal Assent "we might aim at early in 1969, say the beginning of April." He could not be specific about licence fees—it was a question of "finding our way."

MR. SCOTT-HOPKINS said that was "disgraceful"; the Bill had been on the stocks for some months yet they still had no idea of the charges. The Committee divided, ten voting for the clause to stand and seven against,

## **GUILD OF PUBLIC PHARMACISTS**

#### Council's evidence to Zuckerman Committee

THE views of the Guild of Public Pharmacists on the way in which the hospital pharmaceutical service should develop are given in a memorandum of evidence to the Committee on Hospital Scientific and Technical Services. The Committee was set up in August 1967 under the chairmanship of Sir Solly Zuckerman to consider the future development and organisation of pharmaceutical services in National Health Service hospitals and the broad pattern of staffing required, and to make recommendations.

#### "Linstead" Points Stressed

The memorandum draws the Committee's attention to various "H.M." recommendations of the Ministry of Health (based on the Linstead report). It notes the intention to base the future hospital service on a network of district general hospitals providing a wide range of treatment and diag-nostic facilities for in-patients and out-patients, and recommends that the hospital pharmaceutical service in each area should be based on the pharmacy of a district general hospital or its equivalent. That would provide goods, services and staff to associated hospitals, which need not be associated under the same hospital management committee. Area boundaries should be determined by the regional board after taking pharmaceutical advice. The pharmacist in charge of the area would centralise such activities as clerical duties, store-keeping, manufacturing and quality control. In areas with two large hospitals it might be convenient to centralise some functions at one and some at the other hospital. In some circumstances it might be considered desirable to set up a sterile fluids production unit or quality-control laboratory to serve hospitals over a wider area than that for which a full pharma-ceutical service is provided.

Pharmaceutical advice must be readily available to the regional board, and the memorandum proposes a regional pharmaceutical officer or regional pharmacist in most regions. His duties would include:—

(a) General oversight of the pharmaceutical service; assessment of needs; planning for future development of service.

- (b) Development of area and inter-group services; making recommendations when desirable to provide inter-group pharmaceutical services and for rational provision of manufacturing facilities and of quality control facilities throughout the Region.
- (c) Recruitment of pharmaceutical staff of all types; staff training; advice to management committees on appointment of group pharmacists (and chief pharmacists where there is no group pharmacist) and on disciplinary proceedings.
- (d) Acting as secretary of Regional Pharmaceutical Advisory Committee; preparation of agendas and minutes; dissemination of information on pharmaceutical matters, and ensuring that all pharmacists receive relevant circulars.

- (e) Advice on purchase of pharmaceutical supplies; co-ordination of estimates of annual requirements; arrangements for testing samples; distribution of list of items; prices and firms awarded contracts; correspondence with contractors on matters arising from contracts; advice on storage problems.
- (f) Day-to-day advice to Regional Board on pharmaceutical matters, including matters involving relations with medical and nursing professions.
- (g) Organisation of post-entry training (in co-operation with other regional officers) for pharmaceutical staff of all types.
- (h) Planning new pharmaceutical departments and extensions and reconstructions in conjunction with local officers.
- (i) Advice on pharmaceutical equipment and furniture.
- (j) Costing; analysis of expenditure and costing figures obtained from hospital groups; comparison of figures and investigation of anomalies and unusual expenditure figures.
- (k) Advice on sterilisation procedures; installation of sterilising facilities within the hospitals; and setting up central sterile supplies departments.

A regional pharmaceutical advisory committee, comprising six or nine hospital pharmacists (depending upon the size of the region is postulated. Representative(s) of the teaching hospital(s) in the region could be in-cluded and a senior administrative officer of the board should normally attend. Pharmacist members should be nominated by chief pharmacists of regions, who should meet once or twice yearly to discuss matters arising from the committee's work. Main function of committee to advise the Regional Board, through the regional pharmacist, on all matters relating to pharmaceutical services in the region. The memorandum goes on to state that the currently available hospital pharmaceutical service is inadequate in scale, organisation and number personnel. Pharmaceutical Whitley Council is investigating various aspects of staff shortages, including salary, career structure and promotion prospects, need and facilities for postgraduate training; recruitment, training and use of pharmacy technicians and other supporting staff; and organisation of hospital pharmaceutical services. It is pointed out that greatest concern is occasioned by inadequate recruitment into the basic and senior grades, rapid turnover of staff, and the fact that only exceptionally are men being recruited who intend to make hospital pharmacy their career.

#### Pharmacists' Growing Burdens

The scientific content of pharmacy and the responsibility falling upon the pharmacist are constantly increasing, owing largely to the dramatic increase in the number of new drugs and preparations, more sophisticated methods of treating patients with medicinal substances, and the increasing number of drugs that affect the central nervous system and corresponding necessity to

store and distribute them with precautions to avoid theft or misuse. The
skill and knowledge of the pharmacist
are being increasingly called upon by
doctors to devise new preparations
and to give advice on the selection,
dosage and form of preparation of
the drugs they wish to use. The great
increase in use of parenteral preparations, of bottled sterile water in
operating theatres, and of new techniques such as haemodialysis and
peritoneal dialysis, have made it
essential greatly to increase the facilities and staff needed to prepare sterile
fluids. Demand for sterile fluid is
outpacing supply, though many hospitals, as well as manufacturing chemists, have increased their production,
and there are still many operating
theatres that rely upon water boilers
for sterile water, though they have
been condemned by the Minister of
Health.

In spite of the advice given in H.M.(59)43, many groups of hospitals have not integrated their pharmaceutical services under a group pharmacist, but continue to operate uneconomical services in individual hospitals. In country areas hospitals are rarely visited by a pharmacist and the eontrol of drugs is often inadequate, safeguards to protect patients against errors in medication almost non-existent, the staff unable to obtain pharmaceutical advice readily. Those all point to the need for direction of the pharmaceutical service from a central point in the area so that pharmaceutical staff may be used to the best advantage, routine work being carried out by technicians supervision, and pharmacists under being employed in scientific duties and in providing those services for which a pharmacist must take professional responsibility.

#### Few Suitable Departments

Other points made in the memorandum are that few hospitals have pharmaceutical departments suitable as to location in the hospital, space available, and design and many are working with out-of-date equipment. The majority of pharmacists entering the service now hold university degrees and undertake their year of postgraduate training in a hospital pharmacy. That is the minimum desirable requirement for entry and, in order to provide the kind of service needed, and which the pharmacist is potentially able to give, all hospital pharmacists should undertake training for a higher degree orientated to biopharmaceutics during their early years, and should receive training in management.

On pharmacy technicians the memorandum says that the only educational requirement on entry is at present that the student should previously have received a good general education. At the end of two-year training the student should sit the examination for the certificate of the Society of Apothecaries for Assistants in Dispensing. Consideration is being given to raising the educational standard required for entry, and of skill and knowledge required to pass the examination. "In view of the increas-

ing scientific content of the pharmacist's expertise it seems essential to uplift the standards of competence of the technicians who assist him.

To attract pharmacists into the service it is essential to define a career structure, with prospects of promotion to pharmacist in charge of a unit hospital or regional laboratory, area pharmacist (in charge of an area pharmaceutical service based on a district general hospital), regional pharmacist and pharmacist in the Ministry of Health responsible for hospital services. There must be adequate promotion increases at each step and, as the number of higher ranking posts is unlikely to be great, the salary scale at first promotion must meet the needs of a male pharmacist with a family.

For pharmacy technicians a career structure leading to positions involving management of sections or charge unit hospitals cannot be envisaged. Adequate salaries must be paid so soon as the student technician becomes a certificated technician, and annual increments must be enough to retain the services of reliable staff. Under certain clearly defined circumstances additional allowances should be available. The memorandum concludes.-

BECAUSE of his training in pharmacology, and his special interest in the therapeutic use of chemical substances, the pharmacist is well qualified to become a member of a team which, because of the increasing complexity of medical treatment and the dangers associated with the misuse of drugs, is now needed to prescribe drugs in a rational and safe manner. The pharmacist in hospital has made a speciality of collecting information about the actions and uses, dosage, alternative forms of presentation, toxicity and side-effects of drugs, and is frequently called upon to supply such information to medical staff. He is able to advise the clinician on the selection of a drug, its most suitable presentation and dosage, and to warn him about side-effects and toxic reactions which may follow its use, and the possibility of interaction with other drugs administered concurrently. What is required is an arrangement whereby this advice can be available to the clinician at the time when the prescription is being written. Experiments are being made in a number of hospitals in which the pharmacist plays a greater part than he has hitherto been able to play in the arrangements for prescribing and administering drugs in hospitals. Much more work needs to be carried out along these lines before the most satisfactory arrangement for achieving the right relationship between the pharmacist and the clinician can be effected. The pharmacist's special training also fits him to play a part in research involving studies of drug absorption and distribution in man, and in the organisation of clinical trials, and the medical staff do not always appreciate or make use of

Council and annual meetings

THE council of the Guild of Public THE council of the Guild of Public Pharmacists when it met in London on May 24 and 25, elected Professor Harry Brindle an honorary member of the Guild. The Geigy travelling fellowship for 1968 was awarded to Mr. R. Johnson, who will study postgraduate training of pharmacists in hospitals in the United States and Canada. The Noel Hall Committee was Canada, The Noel Hall Committee was reported to have held its first meeting, and the council welcomed its inception.

At a dinner held on the evening of May 24, the president of the Guild (Mr. D. F. SMITH) paid tribute to the work of those council members who were retiring at the annual meeting, and presented tokens of appreciation to Messrs. S. Powlson and J. Morrison. Mr. Powlson retires from the Council after twenty-one years' service-four of them as general secretary and two as president; he was chairman of the staff side of Pharmaceutical Whitley Council Committee C, for many years and has been secretary of the planing and professional services commit-Mr. Morrison, who retires from the hospital service this month, has been district member for Scotland for thirteen years and for the past two or three years has also represented Northern Ireland.

Before the annual meeting on May 25, which was attended by forty members, Mr. M. J. SMITH (Evans Medical, Ltd.) presented the Evans medal for merit in hospital pharmacy to Mr. W. T. WING (chief pharmacist, Newcastle General Hospital). Mr. WING thanked the company and the Guild and read a short paper on "The Effect upon

Professional Pharmaceutical Services of an Objective Approach to the Treatment of Hospital Patients." He said the justification for hospital pharmacy was in the service given to the patient. That service must be extended to include the area in which medicaments were administered and sterilising agents used, and the speaker instanced work done on intravenous fluid therapy to prevent thrombo-

the contribution he can make.

phlebitis and the contribution pharmacists could make in milk kitchens and haemodialysis units.

MR. C. R. DIMOND as Geigy travel-no fellow read a paper on "Design ling fellow, read a paper on "Design and Planning of Hospital Pharmacies in some European Countries", dealing with hospitals in Sweden, Denmark, Italy and Germany. The amount of manufacturing done by hospital pharmacists in each of those countries, he said, was generally inversely proportional to the state of development of its pharmaceutical industry. In the planning of a hospital pharmacy, which should allow a simple and easy work flow, the pharmacist ought to be consulted at all stages in planning, and development must be allowed for.

At the annual meeting three former ordinary members of council (Messrs. T. D. Clarke, W. Mott and G. Raine) were re-elected; and two new members (Messrs. J. P. Curtis and J. G. Roberts, the latter a former district member) were elected. It was announced that there were three new district members (Miss J. E. Fleming, Scotland; Miss M. T. Clarke, Northwestern; and Mr. L. Hanson, Southwestern).

The registrar (MR. B. H. SMITH) reported that membership continued to grow, but twenty-five members had been deleted for non-payment of the increased annual subscription and there was still a need for efforts to recruit members, especially in the grades of senior pharmacist and deputy chief.

Reporting on developments since the branch delegates' meeting, THE PRESIDENT mentioned the formation by the General Whitley Council of a joint consultative superannuation committee, which was expected to consider some of the unsatisfactory features of the present National Health Service superannuation scheme. Mr. Smith also drew attention to the Guild's evidence to the Zuckerman Committee (see above).

## LABORATORIES "COME OF AGE"

#### Medical Research Council's animal breeding and toxicology units

SPEAKING on the occasion of the twenty-first anniversary of the Medical Research Council's Laboratory Animals Centre, Carshalton, Surrey, MR. J. BLEBY (its director) deplored the continued use of stray cats and dogs as laboratory animals in some universities and hospitals. Properly bred animals, though individually more expensive, were finally cheaper in that, as they were disease-free and their characteristics known, fewer had to be used. The Centre's accreditation scheme (established in 1950), whereby large-scale production of laboratory animals was carried out by about ninety commercial breeders, was under the direct control of the M.R.C. The scheme, though voluntary, provided about 90 per cent. of all experimental animals purchased in Britain. The Centre's collection of inbred strains was believed one of the largest in the world and it also operated a specific-pathogen-free (SPF) unit into which entry of persons could be made only through showers and changing rooms, and of materials (cages, food, etc.) only after sterilisation by irradia-

tion by peracetic-acid vapour, disinfectant bath or ethylene-oxide gas. For basic breeding stocks, animals born by Caesarian section were admitted under aseptic techniques, and for five years the unit had been without bacteriological breakdown.

In the production of germ-free animals, from 200 to 300 mice and about sixty rats were caged within polythene jacket "isolators" operations carried out through gloved sleeves let in to the jackets. Germ-free animals had uses of immunological, long-term drug and dietary researches, and the techniques had been adapted to human surgery (as

in organ transplants).

In the toxicology research unit, also on the Carshalton site and under the direction of Dr. J. M. Barnes, research is carried out into occupational hazards from chemicals. Aim of the unit is to explain at molecular level the mechanisms of toxicity and tissue injury so as to understand more about physio-logical processes. The unit has no statutory functions and does no routine testing for toxicity.

## GUIDE TO NEW MEDICAMENTS

Information about proprietary products supplied principally on prescription. Reprints on perforated gummed paper for affixing to index cards are obtainable from the Editor.

THE CHEMIST AND DRUGGIST Guide to New Medicaments, June 8, 1968

AMPICLOX ADULT injection
MANUFACTURER: Beecham Research Laboratories DISTRIBUTOR: Beecham Ethical Distributors, Great West Road, Brentford, Middlesex.

DESCRIPTION: Vials containing 250 mgm. of ampicillin and 250 mgm. of cloxacillin, as the sodium salts.

INDICATIONS: Emergency treatment of the following list of infections until the infecting organisms have been identified, when more specific therapy may be undertaken if required. It is also valuable in treating "mixed infection" of known or unknown aetiology. The list is: Post-operative wound infections; post-operative chest infections; intra-abdominal sepsis; bronchopneumonia; septic abortion; puerperal pyrexia; septicaemia; endocarditis; orthopaedic infections

CONTRAINDICTIONS: Should not be given to subjects hypersensitive to penicillin, or be used in the eye, either subcon-

junctivally or locally.

(e.g. osteomyelitis).

Dosage: Adults, Intramuscular injection: One to two vials four to six hourly, the contents of each vial to be dissolved in 1 mil water for injection. Intravenous injection: One to two vials three times daily, the contents of each vial to be dissolved in 10-15 mils physiological saline given by slow intravenous injection. Intravenous infusion: May be added to intravenous fluid bottle or injected, suitably diluted, into drip tube. Children. Up to two years, quarter the adult dose; two to ten years, half the adult dose.

SIDE EFFECTS: As with other penicillins.
SHELF LIFE: When reconstituted should be used within one hour. Dry powder should be stored in a cool place.

PACK: Carton of ten vials.

SUPPLY RESTRICTIONS: Therapeutic Substances Act.

FIRST ISSUED: April 1968.

THE CHEMIST AND DRUGGIST Guide to New Medicaments, June 8, 1968

CIROTYL tablets and suspension

Manufacturer: Parke, Davis & Co., Staines Road, Hounslow, Middlesex.

DESCRIPTION: Yellow, flat faced tablets, with a single breakline,

each containing 4 mgm. of oxyphenisatin diacetate. Suspension containing 2 mgm, of oxyphenisatin diacetate in each

INDICATIONS: Prevention and treatment of constipation and in cases where it is necessary to maintain stools well formed but soft.

Dosage: Tablets. Adults: One to two tablets daily. Children (2-12 years): Half to one tablet daily for a maximum of three days. Suspension. Adults: Two to four teaspoonfuls daily. Children (2-12 years): One to two teaspoonfuls, and infants half a teaspoonful, daily for a maximum of three days. The dose should be taken before breakfast or at bedtime.

Notes: Oxyphenisatin diacetate is a synthetic form of the active principle of prunes.

Packs: Tablets in containers of twenty and 100. Suspension in bottle of 125 mils.

FIRST ISSUED: Tablets, April 1968. Suspension, 1956 (revised monograph).

THE CHEMIST AND DRUGGIST Guide to New Medicaments, June 8, 1968

#### REVITONE tablets

Manufacturer: Roche Products, Ltd., 15 Manchester Square, London, W.1.

DESCRIPTION: A chocolate flavoured kernel containing 5 mgm.

of thiamine, 10 mgm. of riboflavine, 5 mgm. of pyridoxine, 5 mgm. of nicotinic acid, with a white outer coat con-

5 mgm. of incoming acid, with a mine taining 100 mgm. of ascorbic acid.

INDICATIONS: Correction of deficiency of certain B vitamins and vitamin C including such signs as glossitis, chelosis, angular glomatitis, nasolabial seborrhoea and scorbutic signs.

Dosage: One tablet daily. The tablets are pleasantly flavoured and may be swallowed, chewed or allowed to dissolve in the mouth.

PACK: Metal tube of thirty. FIRST ISSUED: May 1968.

THE CHEMIST AND DRUGGIST Guide to New Medicaments, June 8, 1968

MEDOMIN capsules

Manufacturer: Geigy (U.K.), Ltd., Pharmaceuticals Division, Hurdsfield Estate, Macclesfield, Ches.

DESCRIPTION: Purple, opague white capsules, each containing 200 mgm. of heptabarbitone.

INDICATIONS: Insomnia of varying aetiology.

CONTRAINDICATIONS: Liver damage, acute intermittent porphyria. Dosage: One capsule half to one hour before retiring. The dose may be increased to two capsules.

SIDE EFFECTS: Barbiturate-type side effects may occur after considerable overdosage.

STORAGE: Should be stored in well closed containers.

PACKS: Containers of ten and 100. SUPPLY RESTRICTIONS: P.I., S.1, S.4a.

First Issued: April 1968.

THE CHEMIST AND DRUGGIST Guide to New Medicaments, June 8, 1968

GRAVOL tablets and suppositories

MANUFACTURER: Wallace Laboratories, division of Carter-Wal-

lace, Ltd., Folkestone, Kent.

DESCRIPTION: Orange, scored tablets, each containing 50 mgm. of dimenhydrinate. Adult suppositories each containing 100 mgm. of dimenhydrinate. Paediatric suppositories each containing 50 mgm. of dimenhydrinate.

INDICATIONS: Relief of nausea and vomiting associated with motion sickness, radiation sickness, oral contraception, ver-tigo, nervous tension, migraine. Ménière's syndrome and

surgical anacsthesia.

Dosage: Tablets. Adults: One or two, repeated every four hours if required. Children (over 6 years): Half a tablet every four hours if required. To prevent motion sickness the first dose should be taken 30 minutes before departure. Suppositories. Adults and children over 5 years: One 100 mgm. suppository. Children under 5 years: One paediatric suppository. The doses to be repeated every four hours if required.

SIDE EFFECTS: May cause drowsiness and, if affected, patients should not drive or operate machinery. Potentiated by

alcohol.

PACKS: Tablets in containers of ten, twenty-five and 100. Suppositories in pack of ten. SUPPLY RESTRICTIONS; P.I., S.7.

FIRST ISSUED: Tablets 1963 (revised monograph). Suppositories April 1968.

THE CHEMIST AND DRUGGIST Guide to New Medicaments, June 8, 1968

AKINETON tablets and injection

Manufacturer: Pfizer, Ltd., Sandwich, Kent.

Description: White tablets, with "Pfizer" on one side

"AKN/2" on the other each containing 2 mgm. of biperiden as the hydrochloride 1-mil ampoules each containing 5 mgm. of biperiden as the lactate. INDICATIONS: Parkinsonism: idiopathic, arteriosclerotic, post

encephalitic and drug-induced.

CONTRAINDICATIONS: Epilepsy, prostatic obstruction.

DOSAGE: To begin, 1 mgm. twice daily, gradually increased to 2 mgm. three times daily. After a few days, should be increased gradually until no additional symptomatic improvement is attained. Dose is cautiously reduced until the condition deteriorates. The optimal dose lies midway between the maximum dose given and that at which deterioration occurs. May be administered slowly intravenously or by the intramuscular route. The dose is 5 mgm. to 20 mgm. daily, in divided doses.

PRECAUTIONS: Treatment must not be discontinued abruptly. Transfer of patients to Akineton from other anti-Parkin-

sonian agents should be made gradually.

SIDE EFFECTS: Those referable to autonomic nervous system:dryness of mouth, disturbance of visual accommodation, lassitude and dizziness. Gastric side-effects have been reported.

PACKS: Tablets in bottle of fifty. Injection in box of five ampoules.

SUPPLY RESTRICTIONS: Recommended on prescription only. FIRST ISSUED: New manufacturer, May 1968 (revised monograph).

THE CHEMIST AND DRUGGIST Guide to New Medicaments, June 8, 1968 HAEMOVIN haemorrhoidal cream

MANUFACTURER: Moore Medicinal Products, Ltd., Waverley House, Aberdeen.

DESCRIPTION: Cream containing (w/w) 5 per cent. of titanium dioxide, 2.5 per cent. of salicylamide, 0.5 per cent. of hexachlorophane and 0.25 per cent. of ephedrine hydro-

Conservative management of haemorrhoids, INDICATIONS: pruritus ani, anal fissures and allied conditions.

METHOD OF Use: Treatment may be as convenient to the patient, but normally application night and morning, preferably after a bowel movement, is recommended. After defaecation, the anal area should be bathed with warm water and dried before applying the cream. The cream may be applied externally with gauze or internally by means of the rectal nozzle provided.

PACK: Tube of 25 gm. with rectal nozzle.

FIRST ISSUED: June 1968.

THE CHEMIST AND DRUGGIST Guide to New Medicaments, June 8, 1968

FUNGILIN suspension

MANUFACTURER: E. R. Squibb & Sons, Ltd., Regal House, London Road, Twickenham, Middlesex.

Reddish-orange suspension, with a pleasant DESCRIPTION: orange-fruit-spice flavour containing 100 mgm. of amphotericin B per mil.

INDICATIONS: Treatment of oral candidosis. May also be used in place of Fungilin oral tablets when liquid medication is preferred.

Dosage: Initially 1 mil four times a day, increased according to response and severity of condition. The dose should be held in the mouth for as long as possible before swallowing.

STORAGE: Should be protected from heat and light. SHELF LIFE: Three years.

PACK: Bottle of 12 mils with graduated dropper. SUPPLY RESTRICTIONS: Therapeutic Substances Act. FIRST ISSUED: April 1968.

C. & D. TABLET AND CAPSULE IDENTIFICATION GUIDE

New products

CHYMOCYCLAR capsules: E1, 28/32, H, Ob, —, —, —. CIROTYL tablets: C3, 14/32, P, R, F/F, B2, H/—. Co-Caps tetracycline hydrochloride 250 mgm: F1, 24/32, H, Ob,

GEFARNIL capsules: D3, 11/32, S, El, —,

INTAL compound capsules: Two-colour, hard, G1, clear, 22/32,

MEDOMIN capsules: Two-colour, hard, E6, white, 23/32, —, 402. MYLANTA tablets: Two-colour, layered, white, C3 20/32, P, R,

F/F, B2, 173/—.
Ortho-Novin 1/80 tablets: F7, 8/32, P, R, F/F, B2, 407/407.

REPONEK tablets: D10, 13/32, P, R, Cv/Cv, —, - SINULIN tablets: G8, 16/32, P, R, F/F, B2, H/-

Tetrex Bidcaps capsules: Two-colour, hard, G12, D3, 29/32, --, 401.

Products changed in appearance

ALUPENT 20 mgm. tablets: White, 14/32, P, R, F/F, B2, 371/ 408

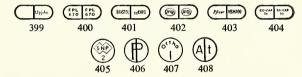
MEDRONE MEDULES 4 mgm.: Two-colour, hard, B4, A2, 20/32, **---**, 399.

NARPHEN 5 mgm. tablets: White, 8/32, P, R, Cv/Cv, -PRELUDIN 25 mgm. tablets: White, 13/22, P, R, F/F, B2, 371/

TELOTREX tablets: E1, 14/32, C, R, Cv/Cv, -VASCULIT 12.5 mgm. tablets: White, 8/32, P, R, F/F, B2, 367/

VIBRAMYCIN 100 mgm. capsules: B4, 24/32, H, Ob, --, --, 403.

Additions to table of markings



## NEW DEVELOPMENT LABORATORIES AT LEEDS

## A Unilever subsidiary equips itself for keener competition in toiletries

THE scientists and technologists of Gibbs Proprietaries, Ltd., are now housed in product-development laboratories in a four-story building along-side the River Aire at Whitehall Road, Leeds. The company's £350,000 investment in the laboratories is expected to bring to a maximum the company's competitive strength in the highly diverse toiletries market. (Consumption of toilet preparations in the United Kingdom has more than doubled in the past ten years and in 1967 the country spent £145,000,000 on making and keeping itself beautiful. The company, a subsidiary of Unilever, Ltd., claim to be the largest makers of toilet preparations in the United Kingdom.

The new laboratories were formally opened at a ceremony on May 22, when a plaque to commemorate the occasion was unveiled by Lord Cole (chairman of Unilever, Ltd.) in the presence of over 100 guests. Lord Cole had been introduced by MR. J. D. BISDEE (chairman of Gibbs Proprietaries, Ltd.) and the proceedings were relayed throughout the works on closed-circuit television. Developed under the supervision of Dr. D. C. Hibbit (technical director), the new building provides 36,500 sq. ft. of floor space for laboratory work on products for skin, hair and teeth, for analytical and bacteriological work; and for packaging research. A separ-

ate laboratory is concerned with the development of aerosols, and a groundfloor pilot area provides for the testing of products before mass production in the factory. The new building houses also a hairdressing salon, photographic studios, library and conference room. Three large air-tight constant-temperature rooms provide cold storage at 0, 20 and 37°C. A bank of variabletemperature humidity cabinets provides flexible testing facilities.

Throughout the laboratories interior finishes are to clinical standards (feltbacked tiles in laboratories stores: corked-backed lino in corridors: suspended ceilings of acoustic

tiles, etc.).





## TRADE REPORT

The prices given are those obtained by importers or manufacturers for bulk quantities or original packages. Various charges have to be added whereby values are augmented before wholesale dealers receive the goods into stock.

LONDON, JUNE 5: The markets remained depressed and, in a week restricted by the spring holiday, prices were scarcely tested. Among the few price changes in CRUDE DRUGS spot PERU BALSAM was sixpence per lb. dearer, Alleppy green CARDAMOMS were also sixpence per lb. dearer on the spot, though prime No. I seed was down one shilling, Jamaican GINGER rose 15s. per cwt. on higher prices from origin. MENTHOL was unchanged on the week. MERCURY fell £15 per flask of 76 lb.

ANISE OIL was firmer by ninepence per Ib. and English distilled CLOVEBUD by 2s. Brazilian PEPPERMINT was also slightly dearer on reports of increased buying in the United States. Among PHARMACEUTICAL CHEMICALS Winchester packs of CHLOROFORM were reduced by 1s. 10d. per litre.

#### **Pharmaceutical Chemicals**

ALUMINIUM CHLORIDE.—Pure, about 310s. for kegs.

Aminacrine hydrochloride.—£24 per kilo.

Antimony trichloride.—Flake in 25-kilo drums, about 15s. kilo.

BEMEGRIDE.—B.P.C. is 320s. per kilo. BISMUTH SALTS.—(Per kilo):—

| Quantity                        | Under 50                              | 50                                    | 250                        |  |  |
|---------------------------------|---------------------------------------|---------------------------------------|----------------------------|--|--|
| CARBONATE SALICYLATE SUBGALLATE | s, d,<br>92 0<br>81 0<br>78 0<br>83 0 | s. d.<br>90 0<br>79 0<br>76 0<br>81 0 | s. d.<br>89 0<br>—<br>80 0 |  |  |

BORAX.—B.P. grade, 1 ton and upward; in sacks, granular, £56 10s.; crystals, £60; powder, £61; extra fine powder, £62 per ton. Less £1 in paper bags. Anhydrous £61 10s. 0d. in paper bags. Surcharge for less than 1 ton but not less than 10 cwt., 2s. per cwt.; 5 to 9 cwt., 10s.; 1 to 5 cwt., 20s.

CALCIUM CARBONATE.—B.P. light precipitated powder, 1-ton lots, £38 10s. per ton in free bags. ex works. PREPARED powder, £22 10s. per ton.

CALCIUM CHLORIDE.—Fused, 437s. 8d. per 100 kilo in  $12\frac{1}{2}$  kilo tins.

CALCIUM LACTATE.—B.P. 250 kilo lots is £412 per 1,000 kilo.

Cantharidin.—Per kilo, 11,511s.

Chloroform. — 35-litre lots in Winchesters, B.P.. 9s. 7½d. per litre.

CINCHOCAINE.—HYDROCHLORIDE, B.P. is 850s. per kilo.

GLUCOSE.—(Per ton) MONOHYDRATE, B.P. powder, £76; ANHYDROUS, £148 10s.; LIQUID, 43. Baume £59 10s. (5-drum lots).

GLYCERIN.—B.P. grade, per cwt.

|  |  | / · ·  |  |  |
|--|--|--|--|--|
|  | Over<br>25 tons                                    | 5 tons<br>and<br>under<br>25 tons                  | I ton<br>and<br>under<br>5 tons                    | Under<br>1 ton                                     |
| 5 cwt. drums<br>2½ cwt. ,,<br>56 lb. tins<br>28 lb. ,, | s. d.<br>260 0<br>263 0<br>267 0<br>289 0<br>291 0 | s. d.<br>262 0<br>265 0<br>269 0<br>291 0<br>295 0 | s. d.<br>265 0<br>268 0<br>272 0<br>296 0<br>300 0 | s. d.<br>271 0<br>274 0<br>278 0<br>305 0<br>309 0 |

Bulk tank wagon loads from 256s. to 259s. 6d. Technical grade, less 5s. cwt.

HYDROQUINONE.—1-cwt. lots, 10s. per lb., 1-ton, 8s. 6d.

IRON SALTS.—AMMONIUM CITRATE, 250 kilos, 9s. 2d. kilo; GLUCCNATE, B.P.C., 4s. 9d. per lb. in 1-cwt. lots; Phosphate,

B.P.C., 50-kilos, 9s. 2d. kilo; SUBCARBONATE, 50-kilos, 6s 0½d. per kilo; SULPHATE, B.P., crystals, 5-cwt., 65s. per cwt.; granular 67s. 6d., exsiccated, 133s. per cwt.

Mercurochrome.—145s. 6d. per kilo.

QUINIDINE.—SULPHATE, £36 per kilo for 15 kilos (500-oz.) lots upwards, ALKALOID, £40 kilo.

QUININE.—In 1,000-oz. lots (per oz.), sulphate, 7s. 6d.; hydrochloride, 9s. 11d.; bisulphate, 7s. 6d.; dihydrochloride, 10s. 1d.; alkaloid, 10s. 1d.; hydrobromide, (500-oz. lots), 10s. 4d.

SORBITOL.—Pharmaceutical grade, 3s. 1d. lb. in 1-ton lots.

#### Crude Drugs

ALOES.—(Per cwt.). Cape primes, 260s., spot; 250s., c.i.f. nominal; Curacao, 525.; 510s., c.i.f.

BALSAMS.—(per lb.). CANADA: 35s., c.i.f., 36s. spot; COPAIBA: B.P.C., 10s. 9d.; c.i.f.; 10s. 6d., spot; PERU: 12s. 8d., c.i.f.; 13s. 6d. spot; TOLU: B.P., 13s.-14s.; genuine as imported, 41s. 6d., c.i.f.

CAMPHOR.—B.P. powder, spot unobtainable; shipment, nominal.

CARDAMOMS.—Alleppy greens, 18s. 6d. lb., spot, 15s. 3d., c.i.f.; prime seed, 24s., c.i.f.

CHERRY BARK.—Thin natural, 2s. 5d. lb., spot; 2s. 3d., c.i.f.

CHILLIES. — Zanzibar 335s. cwt. spot; 312s. 6d., c.i.f.

Cinnamon.—Seychelles Bark, 290s. cwt.; 245s., c.i.f. Ceylon Quills (lb., c.i.f.), five 0's, 11s. 2d.; four 0's, 10s.; firsts, 6s. 10d.; quillings, 4s. 8½d.

CLOVES. — Zanzibar standard quality, 3s. 9d., spot; Madagascar 3s. 2d., c.i.f.

COCHINEAL.—(Per lb.). Canary Isles silvergrey, spot. 27s. (26s., c.i.f.); black brilliant, 28s. 6d. (28s., c.i.f.), Peruvian silver grey, 21s. 6d. and 21s. c.i.f.

CUBEB.—Spot quoted at 285s. cwt.

GENTIAN.—Spot, 235s. cwt.; 230s. c.i.f., both nominal.

GINGER. — (Per cwt.) — Nigerian split, 135s., spot; 130s., c.i.f. Jamaican No. 3, 340s.; Cochin, 280s., spot, 285s., c.i.f.

GUM ACACIA.—Kordofan cleaned sorts, 235s. cwt.; shipment, 216s., c.i.f., June-July. HYOSCYAMUS.—*Niger*, 2s. 3d. lb. (2s. 1d., c.i.f.).

IPECACUANHA.—(Per lb.). Matto Grosso, 48s. and 47s., c.i.f. nominal; Costa Rican, 65s. and 61s. 6d., c.i.f.; Colombian, 47s. 6d. and 47s., c.i.f.

KOLA NUTS.—West African halves are 8d. per lb. on the spot; shipment, 6d., c.i.f.

LEMON PEEL.—Spot, 2s. 9d. lb., 2s. 6d., c.i.f.

LIQUORICE.—ROOT, Russian, 82s. 6d. cwt.; BLOCK JUICE, Anatolian, 250s. per cwt.

Mercury.—Spot, £220 per flask of 76 lb., ex warehouse, nominal.

NutMeGs.—(Per lb.). West Indian (c.i.f.) 80's, 5s. 4d.; sound unsorted, 3s. 7d.; defectives, 2s. 10d. East Indian 80's, 4s. 11d.. 110's, 4s. 2d., c.i.f.; b.w.p., 3s., duty paid.

PEPPER.—Sarawak white, 2s. 11½d., spot; 2s. 9d., c.i.f. Brazilian black, grace 1, 2s. 10d., duty paid; Malabar 330s. cwt., c.i.f.

PODOPHYLLUM.—*Emodi*, 195s. cwt. (190s. c.i.f.).

RHUBARB.—Various grades offered at from 9s. to 25s. per lb. spot.

SEEDS.—(Per cwt.)—Anise.—China star 280s., duty paid. Celery.—Indian, nominal

spot, 250s.; shipment, 237s. 6d., c.i.f., Coriander.—Moroccan, 117s. 6d., duty paid; new crop, 68s. 6d., c.i.f.; Rumanian, whole, 120s.; splits, 112s. 6d., both duty paid. CUMIN.—Iranian, 175s., duty paid; 145s. c.i.f. Dill.—Indian, 140s.; 115s., c.i.f. Fennel.—Indian, 180s.; 160s., c.i.f. Fenugreek.—Moroccan, 95s., duty paid; new crop, 62s. 6d., c.i.f.—Mustard.—English 75s. to 105s. as to quality.

SENEGA.—Canadian, 32s. 6d. lb., c.i.f.; spot 33s. Japanese, 27s. 6d., in bond.

SENNA.—(Per lb.) Tinnevelly Leaves spot; Prime No. 1, 2s. 3d.; No. 3, fa.q., 1s. 4½d.; shipment, No. 3, 1s. 4½d., c.i.f. Poos: Tinnevelly hand-picked, 3s. nominal; manufacturing, 1s. 10d. Alexandria hand-picked, inferior grades only at around 5s.; manufacturing forward, 2s. 4d., c.i.f.; spot, 2s. 6d.

SQUILL.—WHITE, 165s. cwt.; 150s., c.i.f.

STYRAX.—Spot, 21s. 3d. lb. (21s., c.i.f.). TONQUIN BEANS.—Para. 9s. lb., c.i.f. (10s. spot); Angostura seconds, 7s. landed.

VALERIAN ROOT. — Indian, 300s. cwt., spot and c.i.f.; Continental, 470s., c.i.f.; 475s., spot.

#### **Essential and Expressed Oils**

Anise. — Chinese, 16s. 9d. lb.; shipment 15s. 9d. c.i.f., July-August.

BAY.—Spot, 44s. to 45s. per lb.

BERGAMOT.—Spot, 105s. to 111s. 6d. lb. BIRCH TAR.—Rectified, 15s. lb. on the spot.

Bois de Rose.— Brazilian, 20s. 6d. lb. (19s. 9d., c.i f.).

CALAMUS.—Spot from 55s. to 60s. per lb. CAMPHOR, WHITE.—Spot, 7s. lb., duty paid.

CITRONELLA.—Ceylon, 6s. per lb. spot, 5s. 10d. c.i.f.; Formosan, 5s. 10d., in bond; 6s. 6d., c.i.f.; Chinese, 4s. 8d., in bond; 4s. 9d., c.i.f.

CLOVE.—(lb.) Madagascar leaf for shipment, 10s. 9d., c.i.f.; spot, nominal, Englishdistilled bud, 35s. (1-cwt. lots).

COD-LIVER.—B.P. in 45-gall. drums at 12s. per gall., plus 30s. deposit on drums. Veterinary is from 9s. 10d. per gall. 25-ton lots. Delivered terms.

EUCALYPTUS.—Chinese, 80-85 per cent., 10s. 7½d. per kilo in bond; 10s. 6d., c.i.f.

FENNEL.—Spanish sweet, 13s. 6d. lb.

GRAPEFRUIT.—Florida, 25s. lb., c.i.f.; spot from 20s.

JUNIPER BERRY.—English distilled, 270s. lb.; imported, 65s.

LAVANDIN.—French, 22s. 6d. to 25s. lb. LAVENDER.—French, 50s. to 60s. lb.

LAVENDER.—French, 508. to 608. lb.

LAVENDER SPIKE.—Spanish, 22s. 6d. per lb.

LIME.—West Indian distilled, 74-76s. per

lb. on the spot. Nutmeg.—East Indian, 48s. to 50s. lb. West Indian, 80s.; English distilled, 110s.

PENNYROYAL.—From 19s. lb., duty paid. PEPPERMINT.—(Per lb.), Arvenis: Chinese. 11s. and 10s. 10d., c.i.f.; Brazilian, 10s. 3d. and 10s. 2d., c.i.f. American Piperata, 40s. to 47s. 6d.; Italian, 95s.

ROSEMARY.—Spanish, 10s. 6d. lb. spot. Sage.—Spanish, 18s. 6d. per lb.

#### UNITED STATES REPORT

NEW YORK, JUNE 4: KARAYA is described as firm a few cents being added to the price per lb. CINNAMON OIL ranges between \$75 and \$160 lb. LEMONGRASS OIE was \$2.05-\$2.35 lb. with supplies tight.

### TRADE MARKS

APPLICATIONS ADVERTISED BEFORE REGISTRATION

"Trade Marks Journal," May 22, No. 4682

UGATRON, SUGOTROL, 919,238-39, by Wellcome Foundation, Ltd., London, N.W.1. For artificial sweetening preparations and substances (1)

PREPUERIN, 920,150, by Wellcome Founda-tion, Ltd., London, N.W.1. For substances for use in diagnostic tests (1)

OUX BARELY PINK (device), B902,381, by ROUX BARELT FIRM (device), 1892,581, 08, 1802,581, 1802,581, 5. For cosmetic and non-medicated toilet preparations and preparations for the hair (3) MASQUE BLEU, B908,424, by Hycopharm, Paris, France. For lipsticks, eyebrow pencils, eye liners (cosmetics) and eyelash colorants (3)

THAT LOVING FEELING, 913,016, by Studio Girl-Hollywood, Ltd., Havant, Hants. For perfumes, non-medicated toilet preparations, cosmetic preparations, dentifrices, depilatory preparations, toilet articles, sachets for use waving the hair, shampoos, soaps and

essential oils (3)

JYNAFORM, B913,954, by Mediline, A.G.,
Lucerne, Switzerland. For perfumes, eau de Cologne, non-medicated toilet preparations, cosmetic preparations, dentifrices, depilatory preparations, toilet articles, sachets for use in waving the hair, shampoos and soaps (3)

UNFLECT, 915,244, by Richalmonds, Ltd., Northampton. For perfumes, non-nuedicated toilet preparations, cosmetic preparations, dentifrices, depilatory preparations, sachets for use in waving the hair, shampoos, and

essential oils (3) YCLAX BARE, 915,443, by Cyclax, Ltd., London, W.1. For depilatory preparations (3) SIO-LON, 916,175, by Kortman & Schulte, N.V., Rotterdam, 6, Holland. For soaps, soap powders, detergents (not for use in industrial or manufacturing processes) and preparations for laundry use (3)
FHATCHEE, 919,838, by Carew Products, Ltd.,

Heston, Middlesex. For hair growing pre-

parations (3)

CAMPHOPNEUMINE, B903,399, by Toraudag, A.G., Zug, Switzerland. For pharmaceutical and veterinary preparations, medical and surgical plasters and material prepared for bandaging, all for use in the treatment of respiratory ailments; sanitary substances; material for stopping teeth, dental wax; disin-fectants; preparations for killing weeds and destroying vermin; all containing camphor

BIOFOS, B909,061, by International Minerals & Chemical Corporation, Skokie, Illinois, U.S.A. For veterinary preparations and animal feed supplements, all containing phosphates or phosphate derivatives (5)

CAMPO-BISMUQUINE, 905,101, by Toraudag, A.G., Zug, Switzerland. For pharmaceutical, medical and veterinary preparations and substances; antiseptics, disinfectants, germicides and insecticides; antibiotics being pharmaceutical preparations; antiseptic preparations; sanitary substances; deadorants; infants' and invalids' foods; medical and surgical plasters, material prepared for bandaging; material for stopping teeth and dental wax (5)

MODECRIN, MODECRINIC, 907,458-59, by Merck & Co., Inc., Rahway, New Jersey, U.S.A. For inedicinal and pharmaceutical preparations and substances for human and

veterinary use; sanitary substances (5)
RENALYTE. B905,001, by Macarthys, Ltd.,
Romford, Essex. For dialysis fluids, being pharmaceutical substances for use in connection with kidney operations (5)
SPINNAKER, 914,294, by Boots Pure Drug

Co., Ltd., Nottingham. For deodorants (5)
IUSSIJEL, B910,103, by Chas. Pfizer & Co.,
Inc., New York. U.S.A. For pharmaceutical and veterinary preparations and substances, all for use in treatment of respiratory ail-ments, and all in gel form (5)

bers & Co., Ltd., Thorncliffe, Nr. Sheffield.

For antiseptics, disinfectants, germicides and washes (medicated), all for human use in the treament of the skin (5)

IVORIN, 912,630, by Farbwerke Hoechst, A.G. Vormals Mesiter Lucius & Bruning, Frank furt-on-Main-Hoechst, Germany. For herbicides (5)

Pharmaceutical Co., Morris Plains, New Jersey, U.S.A. PROTACILLIN, 920,183, by Beecham Research Laboratories, Brentford, REGLOVIS. Middlesex. For pharmaceutical preparations and substances (5)

ANQUIL, 913,151, by Janssen Pharmaceutica, N.V., Beerse, Belgium. For neuroleptics and tranquilisers, all being pharmaceutical preparations; and analgesics (5)

UTOVLAN, 913,548, by Syntax Corporation, Panama. For steroid hormone preparations for gynaecological use (5) TOPDERM, B914,020, by Societa Farmaceutici

Italia, Milan, Italy. For chemical products for hygiene; pharmaceutical and veterinary preparations; all for use in the treatment of the skin (5)

LEDERFLIP, 916,960, by American Cyanamid Co., Wayne, New Jersey, U.S.A. For medical pharmaceutical preparations (5)

PENSACAINE, 918,776, by Pennsalt Chemicals Corporation, Philadelphia, Pennsylvania, U.S.A. For anaesthetics (5)

U.S.A. For anaesthetics (5)
ADVIRIN, 919,979, by Glaxo Laboratories,
Ltd., Greenford, Middlesex. For pharmaceutical, veterinary and sanitary preparations and substances (5)
APO-RODAGON, 912,470, by Optische Werke
G. Rodenstock, Munich, 5, Germany. For objectives for use with photographic, cinemateric behavior of the control of the con tographic, copying and enlarging apparatus; optical condensers; optical lenses; spectacles and spectacle frames; magnifying

binoculars; and parts and fittings (9)
CADET, 915,142, by Headquarter & General Supplies, Ltd., London, S.E.1. For binoculars

parts and fittings (9)

UNIPHOR, 913,119, by LKB-Produkter, A.B., Stockholm-Bromma, 1, Sweden. For surgical, niedical, dental and veterinary instruments and apparatus; artificial limbs, artificial eyes and artificial teeth (10)

SPIROMAT, 914,547, by Drägerwerke, Heinr. & Bernh. Dräger, Lubeck, Germany. For surgical, medical, dental and veterinary in-

strunients and apparatus (10)

DRAEGEROLITH, 916,111, by Drägewerke, Heinr. & Bernh. Dräger, Lubeck, Germany. For medical and surgical apparatus and

parts and fittings (10)
CARAQUILT, 916,999, by Andriesse, Ltd.,
Ikleston, Derbys. For bed blankets, bed pads
and bed coverings, all being electrically
heated and being quilted or nuade of quilted nuaterial (10) ETHIFLEX, 916,875, by Ethecon Incorporated,

HIFLEA, 916,875, by Etnecon Incorporated, Bridgewater Township, New Jersey, U.S.A. For surgical suture material (10) YPAC, 910,805-06, by J. R. Geigy, A.G., Basle, Switzerland. For containers adapted to

GYPAC, dispense their contents in aerosol form and being for medical use, and parts and fittings (10) and for containers (not for medical use) adapted to dispense their contents in aerosol form, and parts and fittings (21) SUBA SEAL BEST FOR BABY CARE (device),

903,941, by William Freeman & Co., Ltd., Staincross, Barnsley, Yorks. For all goods made of rubber, artificial rubber or plastics

#### **PATENTS**

COMPLETE SPECIFICATIONS ACCEPTED From the "Official Journal (Patents),"

May 29

Steroids. Lepetit, S.p.A. 1,119,081-82-83.

 Steroids. Lepetit, S.p.A. 1,119.081-82-83.
 Saline solution, particularly for haematology.
 P. V. Duraffourd. 1,119,112.
 Nitrophenyl derivative and pharmaceutical compositions containing the same. Laboratorio Bio-terapico Milanese Selvi & C. S.A.S. 1,119,125.

Phenylthioalkyltetrazoles and a process for the preparation thereof. Bristol-Myers 1.119.130.

Sterilisation of bottles, National Research De-

velopment Corporation, 1,119,201.

Preparation of phenylalanine co
Merck & Co., Inc. 1,119,319. compounds. Pharmaceutical compositions containing basic alkanols or salts thereof. Upjohn Co. 1.119.228.

14-hydroxy dihydronormorphine derivatives and their preparations. Endo Laboratories, Inc. 1.119.270

Process for preparing 6.6-ethylene steroid compounds. Smith Kline & French Laboratories. 1.119.275.

Tendon extract. Soc. d'Etudes et de Recherches Biologiques. 1,119,296.

Organic substituted sulphonyl diamides their use in hardening gelatin, CIBA, Ltd. 1.119.306:

Method of testing nucrobial sensitivity to drugs. W. Koch and D. D. K. Koch. 1,119,668. Intrauterine pessary. H. H. Hall. 1,119,674. Selective herbicide. Badische Anilin & Soda-Fabrik, A.G. 1,119,677.

printing apparatus. Ferranti, Ltd. Screen 1,119,693.

Fertilisers. Fisons Fertilizers, Ltd. 1,119,702. Mucolyptic mercapto-sulphonates. USB (Union Chimique - Chemische Bedrijven) S.A. Chimique - Chemische 1,119,721.

blades. Gillette Industries, Razor 1,119,767.

Process for the manufacture of cephalosporanic acid. CIBA, Ltd. 1,119,806.
Anthelmintic composition and method. International Lead Zinc Research Organization. 1,119,820.

British patent specificatons relating to the above will be obtainable (price 4s. 6d. each) from the Patents Office, 25 Southampton Buildings, Chancery Lane, London, W.C.2, from July 10, 1968.

#### COMING EVENTS

Items for inclusion under this heading should be sent in time to reach the Editor not later than first post on Wednesday of the week of

#### Wednesday, June 12

BOURNEMOUTH BRANCH, PHARMACEUTICAL SOCIETY, Medical centre, Boscombe, at 1.20 p.m., Mr. C. J. Trotman on "The Social Security Act, 1966." At Cornelia nurses' hostel, Poole, Dr. M. Marlborough on "New Radiotherapy Centre, Poole." BRITISH SOCIETY FOR THE HISTORY OF PHARMACY,

17 Bloomsbury Square, London, W.C.1, at 7 p.m. Professor D. L. Cowen (professor of history, Rutgers State University, New Jersey, U.S.A.) on "Liberty, Laissez-Faire and Pharmacy in Britain." EDINBURGH CHEMISTS' GOLF CLUB, Aberdour golf club, Edinburgh. Play for Eli Lilly

prize.

DUTH LONDON AND SURREY PHARMACISTS'

Tradition poli club. Oxted, GOLFING SOCIETY, Tandridge golf club, Oxted, at 1 p.m. Play for Bob Swindells memorial trophy, Captain's prize, Phil Thorpe putter and other prizes.

#### Sunday, June 16

NATIONAL PHARMACEUTICAL UNION, Cally hotel, Gatehouse of Fleet, Kirkcudbrightshire, at 2.30 p.m., Area meeting. Mr. E. J. Downing (secretary, Pharmacy Assistants Training Board), on "Staff Training — Decimalisation and Metrication."

#### Advance Information

PARAPHERNALIA '68 (London International Gift Trade Fair), Olympia, London, W.14. August 5-8.

#### Courses and Conferences

ION EXCHANGE IN THE PROCESS INDUSTRIES. Conference in London, July 16-18, 1969, organised by the Society of Chemical Industry.

Details from the Society's General Secretary, 14 Belgrave Square, London, S.W.1.

"Managers as Trainers." Courses are being held as follows:—Oxford, June 10; Derby, June 12; Stoke-on-Trent, June 18; Windsor, June 25; Southampton, June 26; Hull, July 11; Leeds, July 12; Coventry, July 17; Cardiff, July 24; Chelmsford, July 30. Details from Training Development Officer, Retail Trades Education Council, 56 Pussell Square, Longuege 19 Education Council, 56 Russell Square, London, W.C.1.

#### PRINT AND PUBLICITY PRESS ADVERTISING

MAX FACTOR, HOLLYWOOD AND LONDON (SALES) LTD., 16 Old Bond Street, London, W.1: Exuberance perfume. In Woman, Woman's Own, Fashion, Flair, Honey, Novo, She, Petticoot, Vonity Foir, Vogue and Nineteen. Creme Puff. In Foshion, Flair, Honey, Nova, She, Petticoat, Vonity Fair, Vogue, Woman, Woman's Own, Woman's Weekly and Nine-

Woman's Own, Woman's Weekly and Nine-teen. The Brightnings. In Floir, Nova, She, Rave, Weekend, Womon and Woman's Own. PLOUGH INC. (U.K.), LTD., Victoria House, Southampton Row, London, W.C.I: Q.T. quick tanning lotion. In Daily Mirror. RAYWARP TEXTILES, LTD., Alfred Street North, Nottingham: Raywarp Headliners, In Honey, Particol Nineteen and Voque

Petticoot, Nineteen and Vogue.

#### PUBLICATIONS Medical Propaganda

Medical Propaganda

May & Baker, Ltd., Dagenham, Essex: "A
guide to the use of Neulactil in behaviour
and character disorders" (20-p. booklet).

Parke, Davis & Co., Hounslow, Middlesex:
"Cirotyl tablets" (4-p. folder).

PFIZER, Ltd., Sandwich, Kent: "Akineton"
(19-p. booklet).

ROCHE PRODUCTS, Ltd., 15 Manchester Square,
London, W.1: "Revitone multivitamin tablets" (file card).



"SCATTER" BASKET FOR COUNTERS:
Display piece illustrated with models Nicole
Shelby and Vivienne Cornwall feature in
current advertising of Imperial Leather Soap
(ivory and pink) of Cussons Sons & Co., Ltd., Kersal Vale, Manchester.

rescribers

What doctors are reading about developments in drugs and treatments

TWO aspects of heroin abuse are reported in current research papers. In the B.M.J., workers in the Horsham and Crawley psychiatric service tell of the comparative value of screening methods in its detection. Most productive were information from users about other users and a general-prac-tice survey of jaundice in the 15-25 age group. A "casualty" survey was also useful, and six out of seven young people about whom the first evidence was of amphetamine overdosage subsequently proved to be confirmed users. The whole survey [in Crawley new town] showed an incidence of 8:50 per thousand boys and girls, against 1.4 per thousand from Home Office figures. In boys aged 15-20, 14.75 per thousand were "confirmed" users of heroin. The authors find the normal channels of referral to the psychiatrist for treatment of heroin abuse to be inefficient. No professional "pushers" were found in the area, distribution apparently being carried out on a "mutual aid" basis, with users making trips to London for their own supplies and selling any surplus. In the Lancet, workers from the Institute of Psychiatry, London, report on the social factors surrounding heroin users in a provincial town. The users were found to be unlike those either of London or of a new town and there was no common characteristic. Fifty-four per cent. of users came from families in the higher social classes, 37 per cent, were in full-time employment and 19 per cent, were students. It is concluded that any notion of a "typical" heroin user must be abandoned and instead "typologies" sought. There was no evidence of any necessary progression from "soft" to "hard" drugs. Users given treatment for withdrawal were generally back on the drug on the day they rejoined their old environment, suggesting that psychological as well as physical prob-lems need to be tackled and for pro-viding intensive and prolonged aftercare in the community (B.M.J., June 1, p. 549; Lancet, June 1, p. 1189).

#### CONTEMPORARY **THEMES**

Subjects of contributions in current medical and technical publications

INSECTICIDES. Synergism and potentiation in.

Chem. and Ind., June 1, p. 701.

ANTILYMPHOCYTIC SERUM. Survival of skin heterografts under treatment with. Loncet, June 1, p. 1174.

HEROIN use in a provincial town. Lancet,
June 1, p. 1189.

ANTILYMPHOCYTIC SERUM and tumour dissemina-

tion. Brit. med. J., June 1, p. 533,

HEROIN ABUSE. Prevalence and early detection of. Brit. med. J., June 1, p. 549.
CIGARETTE SMOKING, stimulatory effect on meta-

bolism of 3,4-benzpyrene by enzymes in human placenta. *Science*, May 3, p. 541. CETOXYCYLOHEXIMIDE. Memory impairment

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ACETOXYCYLOHEXIMIDE. Memory impairment after subcutaneous injection of. Science, May 3, p. 556.

EVALUATION of drugs affecting skeletal muscle function. Aust. J. Pharm., March, p. S17.

LIGATURE-HOLDING FORCEPS. Loncet, May 25, p. 1120. p. 1130.

#### **NEW COMPANIES**

P.C.=Private Company. R.O.=Registered Office.

CHEMPRO, LTD, (P.C.).—Capital £2,000. To carry on the business of manufacturing and retail chemists and druggists. Directors: Curtis D. Whittle, William S. Fraser, Anthony Richardson, John S. Stanley and Norman L. Smith. R.O.: 13 Tessa Road, Reading. PERMASHIELD CHEMICALS, LTD.

PERMASHIELD CHEMICALS, LTD. (P.C.).—Capital £100. Directors: Charles E. Bond, Roden W. James, Donald H. Mackinnon, Raymond Denham and Alan E. F. Herd, R.O.: The Outer Temple, 222 Strand, LOndon, W.C.2.

RODENTEX, LTD. (P.C.).-Capital £200. To carry on the business of manufacturers of and dealers in rodenticides, herbicides, fungi-cides, etc. Directors: Herbert Beeton and Alfred Turner. R. O.: 56 Glebe Road, Acle, Norwich.

ROFIN, LTD. (P.C.).-Capital £1,000. carry on the business of manufacturers, wholesalers and distributors of chemicals and chemical products, etc. Directors: George R. Findley and Stuart G. Findley, R. O.; Fillets Farm, Hunsdon, Herts.

WORLD TRADE

East Africa and "the Six."—The
East African countries of Kenya, Uganda and Tanzania, which are negotiating an association agreement with the European Economic Community are understood to have increased a previous offer tariff concessions from twenty-six products to around fifty,

## COMMERCIAL TELEVISION

The information given in the table is of number of appearances and total screen time in seconds. Thus 7/105 means that the advertiser's announcement will, during the week covered, be screened seven times and for a total of 105 seconds,

| Period—June 16-22      |     |      |         |       |        | West  |       | st    | ۵      |        | 73       |          |      |       | Is.    |
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| PRODUCT                |     | Lond | Midland | North | Scotla | Wales | South | North | Anglia | Ulster | Westward | Border   | Gram | Eirea | Channe |
| Andrews liver salts    |     | 3/45 | 2/30    | 3/45  | 3/45   | 3/90  | 3/45  | 3/45  | 3/45   | 2/30   | 3/90     | 4/60     | 3/45 | 5/75  | 3/45   |
| Askit powders          | ••• | _    |         | _     | 5/51   |       |       | -     |        | _      | _        | 3/29     | 2/14 | _     | -      |
| Bathjoys               |     |      | _       | _     |        |       | 1/30  |       | _      | _      | _        | _        |      | _     |        |
| Bellair hair spray     |     |      | -       | 7/165 | 5/120  | _     | _     | 4/60  | _      | 5/120  |          | 5/135    |      | -     |        |
| Disprin                |     | 1/15 | 1/15    | -     | _      | _     | 1/15  | 1/15  | _      | 1/15   | 1/15     | 1/15     | 1/15 | -     | 1/15   |
| Nair                   |     | 1/30 | _       | 2/45  | 2/30   | _     |       |       |        |        |          | _        |      | _     |        |
| Polaroid cameras       |     | 3/90 | 2/60    | 2/60  | 3/90   | 2/60  | 2/60  | 2/60  | 3/90   | 2/60   | 1/30     | 2/60     | 3/90 | 3/90  | 3/90   |
| sun glasses            |     | 3/90 | 3/90    | 2/60  | 1/30   | 1/30  | 2/60  |       | 2/60   | 1/30   | _        | _        | _    | 1/30  | 2/60   |
| Simpkin's JuiCees      |     |      |         |       |        | 3/45  |       |       | _      | _      |          | _        | -    | -     | -      |
| Steradent              |     | _    | 2/60    |       | _      | -     | _     | 3/90  | _      | _      | _        | -        |      |       | _      |
| Supersoft hair spray   | ••• | -    | _       |       | _      |       | 3/90  |       | _      | _      | _        | _        | -    | -     | -      |
| Trufood baby milk      |     |      | 2/60    | 2/60  |        |       | 2/60  | 2/60  |        |        | _        | _        | _    | _     | _      |
| Wright's coal tar soap | *** | 2/30 | 2/30    | 3/45  | 2/30   | 3/45  | 2/30  | 2/30  | 1/15   | _      | 3/45     | 2/30     | 3/45 | -     | _      |